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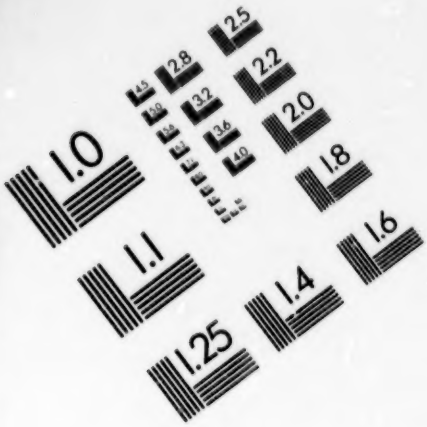

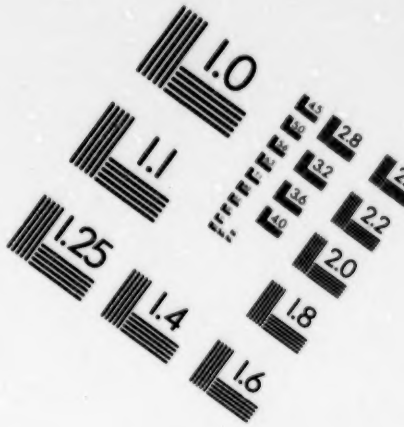

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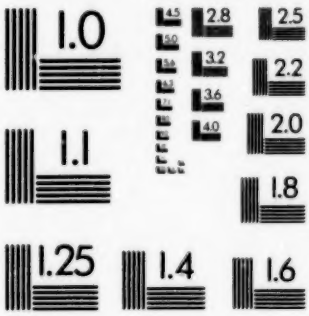

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Economic and Social Council

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High-level political forum on sustainable development
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Global Sustainable Development Report 2016: summary for policymakers

Note by the Secretariat

The Secretariat has the honour to transmit to the high-level political forum on sustainable development convened a summary, prepared for policymakers, of the *Global Sustainable Development Report 2016*.

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Global Sustainable Development Report 2016: summary for policymakers

1. The present document is an executive summary of the *Global Sustainable Development Report 2016*.[1] Building upon the 2014 and 2015 reports, the latest report responds to the mandate given at the United Nations Conference on Sustainable Development to contribute to strengthening the science-policy interface for sustainable development in the context of the high-level political forum on sustainable development.

2. The preparation of the report involved an inclusive, multi-stakeholder process drawing upon scientific and technical expertise from inside and outside the United Nations. A total of 245 scientists and experts based in 27 countries, including 13 developing countries, contributed to the report, 62 policy briefs were submitted in response to an open call and 20 agencies, departments and programmes of the United Nations system contributed to the report with input, comments, suggestions or revisions.

3. Major international conferences and summits in 2015 — on financing for development, sustainable development and climate change — have defined a new sustainable development agenda for the coming 15 years. At all levels, from global to local, attention is turning towards implementing this ambitious agenda. This is the context in which the *Global Sustainable Development Report 2016* appears.

4. Given the adoption of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals, the report adopts the Goals as its scope. True to its mandate, the report is designed as an assessment of assessments. It endeavours to present a range of scientific perspectives and to be policy-relevant but not policy-prescriptive. Just as its predecessors, it continues to explore possible approaches and vantage points from which to examine the science-policy interface, as well as scientific approaches that can inform policies, building upon the integration of and interlinkages between sustainable development goals, sectors and issues.

5. The report was prepared specifically to inform the discussions at the high-level political forum on sustainable development in 2016. The theme chosen for the forum in 2016 is "Ensuring that no one is left behind". This theme is a recurring thread in the report. The first chapter asks what "ensuring that no one is left behind" means in relation to the 2030 Agenda and provides a frame for other chapters of the report. Those chapters provide specific examples of how the inclusiveness imperative may have an impact on the delivery of the Agenda, through an examination of the nexus of infrastructure, inequality and resilience (chap. 2) and through the cross-cutting dimensions of technology (chap. 3) and institutions (chap. 4). As a critical dimension of the science-policy interface, the report also explores ways in which new and emerging issues identified by science could be screened and analysed for the benefit of the forum and its mandate to provide high-level guidance on sustainable development.

Leaving no one behind and the 2030 Agenda

6. Ensuring that no one is left behind is a fundamental guiding principle for the implementation of the 2030 Agenda. In implementing the Agenda, countries and

[1] See http://sustainabledevelopment.un.org/globalsdreport.

stakeholders will have to make choices regarding where, when and how to act. In that process, they have pledged to endeavour to reach the furthest behind first. Fifteen years from now, when this generation and the next together assess the implementation of the Agenda, a key measure of success will be the extent to which it has allowed for improvement in the lives of the poorest and most vulnerable, regardless of gender, race, age, religion, place of residence or any other factor. Many organizations have begun work on the implications of the call to leave no one behind for the delivery of the Agenda and for their missions.

7. Given the importance of this notion in the 2030 Agenda, it is critical that some clarity exist on its implications for implementing the Agenda. At the conceptual level, three main questions need to be addressed. First, who are those being left behind or at risk of being left behind? Second, how can strategies and policies reach them in practice? Third, what types of strategies and policies would be appropriate in order to leave no one behind? Science can inform decision-making on these three broad questions. Through this, it can also provide elements to assess how ambitious and challenging it will be to realize the commitment of leaving no one behind, by revealing to what extent strategies and policies that have been used in various Sustainable Development Goal areas are aligned with this objective and what their success has been in achieving it.

8. The ambition to reach the furthest behind first is a transformative aspect of the 2030 Agenda. Does this imply different implementation strategies than those commonly used in the past? What could it mean for important cross-cutting dimensions, such as institutions, and for the way technology is managed? Here also, scientific evidence can inform the debate.

9. The first chapter of the report explores the implications of leaving no one behind for the operationalization of the Sustainable Development Goals from a science-policy perspective. It examines what "ensuring that no one is left behind" means in relation to related concepts that are prominent in the 2030 Agenda for Sustainable Development, such as inequality and inclusiveness. It reviews some of the concepts and methods used to identify those left behind and to reach them in practice. Lastly, it highlights examples of development strategies used in various areas of sustainable development and what evidence tells us about their effectiveness in leaving no one behind.

10. Many Sustainable Development Goals and targets directly relate to leaving no one behind and refer to specific objectives and actions, as well as groups — of countries or people — that should be the object of sustained attention in this regard. This is particularly the case with the Goals that were within the scope of the Millennium Development Goals, including those relating to poverty, gender, education, health and means of implementation. In those areas, considerations regarding inclusiveness in a broad sense have long been part of the main development discourse and practice, and action and policies to address this dimension have become part of the standard development apparatus.

11. Many criteria can be used to identify those left behind, whether entire countries or people within countries. In practice, those left behind with respect to a particular dimension of the 2030 Agenda may be different groups in different societies. In addition to references to specific groups, including women, indigenous peoples, persons with disabilities and youth, and deprivation indicators focused on single areas or sectors, many indices of multiple deprivation exist, which

incorporate social, economic and environmental indicators. For example, the Multidimensional Poverty Index published by the United Nations Development Programme incorporates 10 weighted indicators that measure education, health and standard of living. This and similar composite indicators were created in response to the growing concern over the multiple dimensions of poverty. Deprivations tend to be spatially concentrated, and policies concerned with leaving no one behind therefore need to take geography into account. In this regard, multiple deprivation maps based on composite indicators have been used as instruments for planning and management at various levels, from the national to the subnational and local levels, both in developed and developing countries.[2]

12. In many areas, inclusive development strategies are the commonly accepted paradigm. Examples include the areas of drinking water, electricity and other basic services, for which ensuring universal access is often an overarching objective, as now reflected in the Sustainable Development Goals. However, whether strategies succeed in reaching those left behind depends on many factors, from country-specific circumstances to their design, targeting methods and practical implementation. Various targeting methods have been used to reach those left behind. All require underlying data systems to be implemented together with administrative capacity in various institutions. Available evaluations from different Goal areas all suggest that there are significant practical challenges in effectively reaching those left behind. For example, self-targeting strategies to identify the beneficiaries of food subsidies may impose costs on the recipients, such as the transportation costs involved, or may cause social stigma.[3]

13. Examples of interventions reviewed for the report that aim to reach the furthest behind first include: nutrition, for which the core target for interventions in developing countries is those suffering the most from stunting; area-based interventions targeting the poorest locations; and strategies to provide shelter for homeless people.

14. A strong message is communicated in chapters 1 to 4, even though their topics are very different and the scientific communities involved in each of them are distinct: if no one is to be left behind in 2030, the notion of inclusiveness cannot be treated as an afterthought or even mainstreamed in other areas. Rather, it should be an integral part of institutions' design and functioning, of research and development and of infrastructure planning and development.

15. Based on the limited evidence reviewed in the report, over the coming 15 years, the goal of leaving no one behind in sustainable development interventions may not present insurmountable difficulties in many areas covered by the 2030 Agenda. Endeavouring to systematically reach the furthest behind first may represent a much greater challenge and may, in some cases, imply a more significant departure from present strategies. That endeavour is likely to require attention at three levels. First, better taking into account the interests of those left behind will require assessing the way in which strategies and policies are designed. This in turn

[2] For an application at the provincial level in South Africa, see www.statssa.gov.za/?page_id=3895. For an application at the municipal level in the United Kingdom of Great Britain and Northern Ireland, see http://gov.wales/docs/statistics/2015/150812-wimd-2014-revised-en.pdf and www.sheffield.gov.uk/your-city-council/sheffield-profile/deprivation-statistics.htm.

[3] David Coady, Margaret Grosh and John Hoddinott, *Targeting of Transfers in Developing Countries: Review of Lessons and Experience* (Washington, D.C., World Bank, 2004).

may require the incorporation of an enhanced understanding of the dynamics of poverty, marginalization and vulnerability in a country-specific and place-specific context. This may also involve ways to give more of a voice to deprived or marginalized groups in policy discussions and decision-making processes. The institutional dimension is clearly crucial in this, as argued in chapter 4 of the report. Second, there will be a need to review, and possibly update, the ways in which strategies are executed, with particular efforts made to reach the furthest behind, addressing gaps in administrative capacity and data to improve the targeting of programmes. Third, at the highest level of government decision-making, taking the 2030 Agenda at its word will require a consideration of how social objectives are balanced with other objectives, such as short-term economic efficiency. Ultimately, the priority given to those furthest behind will be reflected in the allocation of resources, from both the public and the private sectors.

16. Going forward, it will be critical to systematically collect further scientific evidence on how existing development strategies do indeed reach the furthest behind. A first step could be an inventory of existing metastudies that attempt to review the effectiveness of development interventions in areas covered by the Sustainable Development Goals in reaching those left behind. While evaluations do exist for specific Goal areas, they use different criteria for defining and measuring those left behind or furthest behind and for assessing the effectiveness of interventions in reaching them. It could be useful to assess the costs and benefits of investing in more comparable frameworks for evaluating development interventions in different Goal areas. This would likely be a significant undertaking in terms of methodology and cost.

Nexus approach: the infrastructure-inequality-resilience nexus

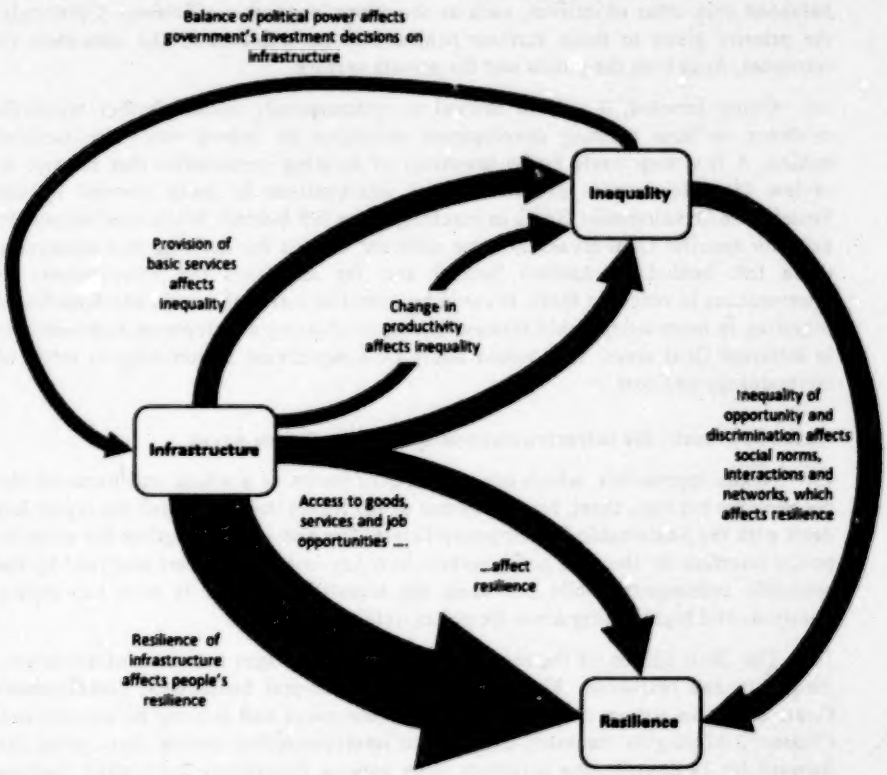
17. Nexus approaches, which examine sets of issues as a whole and focus on the connections between them, have been one of the lenses through which the report has dealt with the Sustainable Development Goals. The aim is to strengthen the science-policy interface by showing policymakers how key interlinkages are analysed by the scientific community, while providing the scientific community with key policy questions and highlighting areas for policy-relevant research.

18. The 2016 edition of the report examines interlinkages between infrastructure, inequality and resilience. These areas relate to several Sustainable Development Goals and have strong connections with inclusiveness and leaving no one behind. Chapter 2 highlights the main channels of interconnection among these areas put forward by 24 contributing scientists from various disciplines and United Nations experts, in addition to providing a review of findings from several hundred publications. Extensive bodies of literature have focused on each of these areas. For example, the area of infrastructure has received significant attention in development circles, owing to its perceived critical role in spurring economic growth and development. However, scientists focusing on each of those fields typically hail from different communities, making links between the three areas less commonly studied than any of the three areas taken in isolation.

19. Some of the interlinkages in the nexus have received much more attention from scientists than others. This is illustrated in figure I, which summarizes in a simplified way the key interlinkages that emerged from the analysis. Areas that are well covered by scientific research are the links between infrastructure and

inequality, and how people's resilience is affected separately by inequality and by the resilience of infrastructure to natural disasters. By contrast, although the report received input from experts from a broad range of disciplines, linkages in which the causal relation runs from resilience to inequality and from resilience to infrastructure were dealt with only very marginally or not covered at all. Further research in these two areas may be needed to document important linkages, synergies and trade-offs.

Figure I
Evidence map of the infrastructure-inequality-resilience nexus


Balance of political power affects government's investment decisions on infrastructure
Inequality
Provision of basic services affects inequality
Change in productivity affects inequality
Inequality of opportunity and discrimination affects social norms, interactions and networks, which affects resilience
Infrastructure
Access to goods, services and job opportunities ....
...affect resilience
Resilience of infrastructure affects people's resilience
Resilience

Source: Authors' elaborations based on input by experts and literature review.

20. The interlinkages identified by experts and described in figure I can be summarized as follows. Infrastructure affects inequality through three main channels: the provision of basic services such as water, sanitation and electricity; broad (macro-level) increases in productivity that result from the presence of infrastructure such as irrigation, electricity, information and communications technology and roads; and (micro-level) effects of infrastructure on people's access to goods, services and job opportunities. In general, the literature has found a

positive relationship between infrastructure provision and reduced inequality.[4] However, the specific channel or combination of channels through which this occurs is complex, as shown by the large number of econometric, microeconomic and other empirical studies on those channels.[5] Inequality is affected by the quality, design, coverage, accessibility and distribution of infrastructure. Key elements in this regard are where infrastructure is located and whom it is intended to benefit.

21. Inequality affects infrastructure through its effect on the balance of political power, which in turn affects government decisions on the provision of infrastructure. That may result in a disproportionately low share of investment being directed to infrastructure that benefits the most disadvantaged, reinforcing and perpetuating social and spatial inequalities.[6] Breaking that vicious cycle may be critical for the implementation of the 2030 Agenda.

22. The effect of infrastructure on resilience is an area of the nexus that has received much attention by the scientific community. In particular, the literature has focused on how the quality, design, distribution, interrelation and operation of infrastructure affect its resilience to natural disasters, which in turn influences people's resilience to shocks. There is considerable information about resilience to more predictable and lower-intensity events, but much less on how to make infrastructure resilient in the case of more severe disasters.[7] There is also a significant body of research on critical infrastructure, such as transport networks and electricity infrastructure, which are particularly vulnerable to chain reaction effects during crises.[8]

23. Inequality of opportunity and discrimination affect resilience through their impact on social norms, interactions and networks, which have an effect on people's ability to adapt to shocks. In that context, vulnerable populations are usually the most severely affected. Much of the research focuses on the role of social capital in building resilience.[9] Nevertheless, in general, this interlinkage appears to have received less attention from the scientific community than others in the nexus.

24. In any nexus, harnessing synergies and addressing trade-offs are critical for policymaking. In this regard, contributing experts have noted that reducing inequality in any of its dimensions also contributes to better infrastructure provision and increased resilience by, for example, increasing the likelihood of infrastructure

[4] Examples of the literature include: César Calderón and Alberto Chong, "Volume and quality of infrastructure and the distribution of income: an empirical investigation", *Review of Income and Wealth*, vol. 50, No. 1, (March 2004), pp. 87-105; and Dulani Seneviratne and Yan Sun, "Infrastructure and income distribution in ASEAN-5: what are the links?", International Monetary Fund Working Paper, No. WP/13/41, (International Monetary Fund, February 2013), available from www.imf.org/external/pubs/ft/wp/2013/wp1341.pdf.

[5] For example see Sumedha Bajar and Meenakshi Rajeev, "The impact of infrastructure provisioning on inequality: evidence from India", Global Labour University Working Paper, No. 35.

[6] For example see Daniel Albalate, Germà Bel and Xavier Fageda, "Beyond the efficiency-equity dilemma: centralization as a determinant of government investment in infrastructure", *Papers in Regional Science*, vol. 91, No. 3, (August 2012), pp. 599-615.

[7] For example see Miguel Esteban, Hiroshi Takagi and Tomoya Shibayama, *Handbook of Coastal Disaster Mitigation for Engineers and Planners* (Oxford, Elsevier, 2015).

[8] For example see Ana Laugé, Josune Hernantes and Jose Sarriegi, "Critical infrastructure dependencies: a holistic, dynamic and quantitative approach", *International Journal of Critical Infrastructure Protection*, vol. 8 (January 2015), pp. 16-23.

[9] See Daniel P. Aldrich, *Building Resilience: Social Capital in Post-Disaster Recovery* (Chicago, University of Chicago Press, 2012).

investment that benefits vulnerable groups.[10] In relation to infrastructure policies, a focus on both efficiency and equity is needed to harness the synergies in the nexus. An important policy component is geographic equity in the provision of basic service infrastructure. To increase synergies between infrastructure and resilience, regulatory and incentive mechanisms must be in place to integrate disaster risk reduction into all phases of the infrastructure life cycle and to ensure the resilience of critical infrastructure to natural disasters. It has been suggested that participatory processes that involve local communities and their various segments can be useful ways to ensure that considerations relating to economic, social and environmental dimensions are taken into account when planning for infrastructure investment.

25. Contributing experts noted a need to further disaggregate the analysis between rural and urban contexts to be able to provide more specific policy recommendations. In rural areas, infrastructure investments are essential to connect individuals to livelihoods and opportunities. Urban areas provide easier connectivity, but tend to present challenges such as fragmented governance structures, congestion and high disparities in access to services, especially in informal settlements and peri-urban areas.[11] The report provides examples of policies that have been found to address synergies within the nexus. For example, labour-based programmes in infrastructure projects can expand job opportunities and reduce inequalities while improving resilience to natural disasters.[12]

26. Further cross-disciplinary collaboration and engagement between researchers, practitioners, decision makers and other stakeholders could be a way of achieving the mutual learning and transfer of information that would enable scientific knowledge to be transformed into practical strategies to harness the synergies — and address the trade-offs — between the three areas of the nexus.

Perspectives of scientists on technology and the Sustainable Development Goals

27. Chapter 3 of the report presents a range of perspectives of scientists on the role of technology for the achievement of the Sustainable Development Goals. Understanding that role is critical because technology has greatly shaped society, the economy and the environment, and vice versa. In fact, technology, society and institutions co-evolve. Progress in technology therefore requires institutional adaptations and may be constrained by social issues. Policy actions to achieve the Goals and ensure that no one is left behind must consider these interlinkages.

28. Technology is essential for achieving the Goals and reaping the benefits of synergies among them, as well as for minimizing trade-offs among the Goals. The importance of technology is widely appreciated, as reflected by the significant emphasis laid on it in the Goals and targets. Indeed, not only is technology captured in Goal 17 as a key means of implementation, but also, of the 169 targets, 14

[10] See C. Venter, V. Vokolkova and J. Michalek, "Gender, residential location and household travel: empirical findings from low-income urban settlements in Durban, South Africa", *Transport Reviews*, vol. 27, No. 6 (October 2007), pp. 653-677.

[11] For examples see Roy W. Bahl and Johannes F. Linn, *Governing and Financing Cities in the Developing World*, Policy Focus Report, (Cambridge, Massachusetts, Lincoln Institute of Land Policy, 2014); and United Nations Human Settlements Programme, *Planning and Design for Sustainable Urban Mobility: Global Report on Human Settlements 2013* (Nairobi, 2013).

[12] See International Labour Organization, *Building Rural Roads* (International Labour Organization Regional Office for Asia and the Pacific, 2008).

explicitly refer to technology, and many others relate to issues that are often discussed largely in technological terms. In general, the targets most closely related to technology fall into three categories: those that relate to significant overall technology performance improvement; targets for universal access to specific technologies; and targets that delineate elements of effective global innovation systems for sustainable development. The technology-related targets are much less quantitative than the corresponding targets proposed in the scientific literature.

29. While technology offers solutions to many sustainable development challenges, it also has continuously added new challenges. In particular, technological change can be a source of conflict or a tool for social inclusion and greater cooperation. In addition, all technologies consume resources and may use land and pollute air, water and the atmosphere, albeit to varying degrees. Examples of relatively new technologies considered in the report that illustrate these two facets of technological change include digital automation, nanotechnology, biotechnology and genomics, and synthetic biology. These technologies are becoming driving forces for science, research and, increasingly, economic activity. All hold great promise in terms of improving well-being and solving development challenges, but all present possible challenges.

30. For example, technology gaps exist in all sectors, and their nature and severity in terms of being a constraint to development differ greatly. New gaps often emerge alongside new technologies, such as the use of big data, the Internet of things, 3D printing, mass online open courses and digital automation. All could have wide-ranging implications that increase, rather than decrease, existing inequalities. While such technologies are in an embryonic stage, it is important for countries to understand them, identify their potential implications and use foresight activities to guide policy planning exercises.

31. Chapter 3 provides an overview of the perspectives of scientists on technology and the Goals. It synthesizes contributions from 57 scientists and experts with research affiliations in 20 countries, representing more than 40 sustainability science disciplines, who were asked what were the most promising actions or policy elements for an optimal leveraging of technology for the Goals and leaving no one behind, and which technologies and what level of their performance and deployment would be most crucial leading up to 2030.

32. Many submissions received from scientists for the report pointed to a need to make simultaneous progress on issues relating to equity, especially in access to technology, on overall technology system performance and on supporting institutional change. Strategies focusing on only one of these components have proved ineffective in the long run. Policy actions must support both research and development to spur technology performance at the technology frontier, as well as promote the diffusion and adaptation of existing technologies in developing countries and among marginalized groups in all countries. One supports the other, and vice versa.

33. Effective technology policies differ by country and depend on the country's level of diversification and technological capabilities. Policy actions on technology are most effective when they are firmly grounded in scientific knowledge and take into account the complexities of technological change and technology transfer and dissemination and the unique circumstances of the country in question. If only one or the other of these elements is supported, innovation systems, understood as the

network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies, perform suboptimally. Policy actions must support both incremental and gradual technological and institutional improvements, as well as radical, Schumpeterian "gales" of "creative destruction". Both are necessary — one requires the other. In this regard, education and infrastructure are essential prerequisites for technological change.

34. Scientists who contributed to the report proposed policies and actions for technology to support the realization of the Goals that typically encompassed not just one but several of the following areas: research, development and demonstration; technology transfer and diffusion; the establishment of goals, targets and mandates for specific technologies or technology systems (including the mandating of a minimum share of renewable power generation); policy environment and market incentives; knowledge-sharing and capacity-building; and stakeholder participation and governance. They tended to highlight policies and actions far outside their own disciplinary expertise, which illustrates the relevance of taking into account integrated systems in addressing the issue of technology in the context of the 2030 Agenda.

35. Scientists emphasized a need for national and international action plans and technology road maps. Promising technological trajectories and new industries can be identified by each country. Scientists suggested the importance of simultaneously investing in new and old technologies; in increased performance of advanced technologies and technology adaptations for underserved communities; in large-scale infrastructure projects and small-scale granular technologies. They also suggested that science road maps should include measures relating to affordability and inclusion, which should be built into research and development processes from the outset. Other notable key actions or policy elements suggested by scientists included: effective national science-policy interfaces; foresight and scenario planning; the facilitation of learning across communities, including underserved communities; and cluster analysis. The latter analyses networks of firms linked to one another (whether linked through production chains, those geographically concentrated that make use of related buyers, suppliers, infrastructure and workforce, or those of a similar nature), with a view to addressing the systemic imperfections of innovation systems.

36. Looking towards 2030, scientists identified emerging technologies crucial for the achievement of the Goals, which fall into the biotechnology, digital technology, nanotechnology, neurotechnology and green technology categories. However, little information appears to exist on the level of performance and deployment of these technologies that would need to be achieved by 2030. While some quantifications exist in this regard, further collaboration on Goal scenarios and road maps that explicitly incorporate technology will be essential. Long-term technology road maps can support business development and policy planning.

Inclusive institutions: the example of national councils for sustainable development and parliaments

37. There is a clear awareness that an understanding of institutions is important for delivering on the imperative to leave no one behind. Institutions are essential enablers of inclusiveness, although they are not the only ones. The 2030 Agenda does not prescribe institutional models for the national level, but outlines

governance principles that institutions should strive to implement, such as effectiveness, inclusiveness and accountability (see Goal 16), responsive, inclusive, participatory and representative decision-making at all levels (see target 16.7) and policy coherence (see target 17.14).

38. Institutions can trigger behaviour and trends that can have positive or negative impacts on development outcomes, in particular in terms of inclusiveness. Inclusive institutions bestow equal rights and entitlements and enable equal opportunities, voice and access to resources and services. They can be based on principles of universality (such as universal access to justice or services), non-discrimination (for example, inheritance laws that protect widows' land rights) or targeted action (for example, affirmative action to increase the proportion of women political representatives). On the other hand, power holders can shape institutions for the benefit of some rather than all groups of society. Institutions that are not inclusive potentially withhold rights and entitlements, undermine equal opportunities, voice and access to resources and services and perpetuate economic disadvantage. They can also have a negative impact on the non-economic dimensions of poverty, including through a lack of access to services, a lack of voice in decision-making and vulnerability to violence and corruption.

39. From a science-policy perspective, a natural question to ask is what types of institutions are necessary for achieving inclusive goals. Achieving any particular target will require a combination of factors, including legal and regulatory components; multiple institutions intervening at various levels; and potentially broader social changes, such as in social norms, which themselves can be spurred by changes in institutions. For example, the advancement of gender equality requires a range of actions at all these levels and the intervention of a range of institutions with different mandates and purposes. Conversely, individual institutions, especially those with broad mandates, can contribute to inclusiveness in many different areas and society-wide. It is important to assess both how inclusive institutions are, and whether and how they foster inclusiveness through their actions. In this vein, the report explores two specific types of institutions: national councils for sustainable development and national parliaments. A more in-depth assessment of the research is needed on other types of institutions and how they contribute to inclusiveness in the context of the 2030 Agenda, and this should be a critical component of future reports.

40. National councils for sustainable development were first identified as important institutional components in 1992, in Agenda 21. Over the past two decades, many countries have experimented with versions of such councils, with varying levels of success.[13] Lessons learned from that phase can be useful for the implementation of the 2030 Agenda. The research reviewed for the report suggests that, if provided with adequate resources, such councils can be effective mechanisms for stakeholder participation and engagement across the entire policy cycle, in order to: (a) inform and educate the public at large on topics relating to sustainable development; (b) stimulate informed public debates; (c) involve key

[13] Today, the number of national councils for sustainable development and similar bodies has exceeded 100 worldwide, with a wide variety of forms and functions. For examples, see Derek Osborn, Jack Cornforth and Farooq Ullah, "National councils for sustainable development: lessons from the past and present" (Stakeholder Forum, 2014), available from www.iisd.org/sites/default/files/publications/sdplannet_lessons_from_the_past.pdf.

stakeholders in formulating policy recommendations; and (d) involve stakeholders in various parts of implementation and progress reviews. In practice, government attitudes regarding stakeholder involvement influence the functioning of the councils and the resources provided to them. The composition of such councils usually reflects the political system and culture in which they exist. In general, the more the council is dominated by the Government, the more the communication of government policy to various stakeholders is its main role. The more independent the council, the greater the role it tends to play in the decision-making process.

41. As legislatives bodies, parliaments are very important for the implementation of the 2030 Agenda and the Goals. The involvement of parliaments is guided by each country's institutional regime and sovereign decisions. Parliaments approve laws and oversee their execution by the Government. They also oversee national policies and strategic plans and approve budgets. In turn, Governments are expected to report back to parliaments, which have at their disposal evaluations and assessments from bodies such as audit institutions. While countries differ in their parliamentary systems, all of them require parliamentary approval on legislation pertaining to the Goals.

42. Chapter 4 of the report makes the distinction between the inclusiveness of institutions and inclusiveness through institutions. The former refers to whether institutions themselves are designed in a way that is conducive to providing inclusive representation and a voice to all sections of society (or all countries). The latter refers to whether institutions, through their actions, directly support or enable more inclusive outcomes. In the case of parliaments, this means examining both how parliaments themselves are inclusive in their representation of all segments of society, including of marginalized groups, and how, when adopting legislation, they take into account the needs of these groups. For example, parliaments are in a unique position to enact legislation to contribute to the elimination of gender-based discriminatory norms and practices, foster women's participation in decision-making processes and ensure equal access to resources, basic services, education, economic resources, land and new technology, all of which are specifically highlighted in the targets of the Goals.

43. In this regard, chapter 4 examines specifically women, indigenous peoples, persons with disabilities, and children and young people. Research reviewed for the report suggests that, while progress has been made with respect to the representation of these groups in national parliaments, gaps still exist. Similarly, while progress has been made in terms of codifying the rights of marginalized groups, there remains a long way to go in this respect, and parliaments will have a key role to play in ensuring that no one is left behind.

Identifying emerging issues for the high-level political forum on sustainable development

44. The identification of new and emerging issues warranting policymakers' attention is a critical function of the science-policy interface. Building on the 2014 and 2015 reports, the 2016 report provides an overview of existing approaches to identify emerging issues for sustainable development.

45. Policymakers are exposed to a broad range of analyses, rankings and advice concerning emerging issues. Consequently, a categorization of existing material, informed by a sustainable development perspective, could contribute to improved

policymaking. The process of identifying emerging issues can be usefully guided by criteria during the "scanning" phase for issues from a range of sources. Criteria can help to make explicit what counts as an emerging issue. The criteria of impact and probability are common starting points in this respect. In addition, criteria such as persistence, irreversibility, ubiquity, novelty and potential for mobilization could also be considered. Priority, a criterion intended to capture an issue's importance in terms of social and cultural norms or impact on already vulnerable and marginalized groups, can accommodate principles such as "ensuring that no one is left behind".

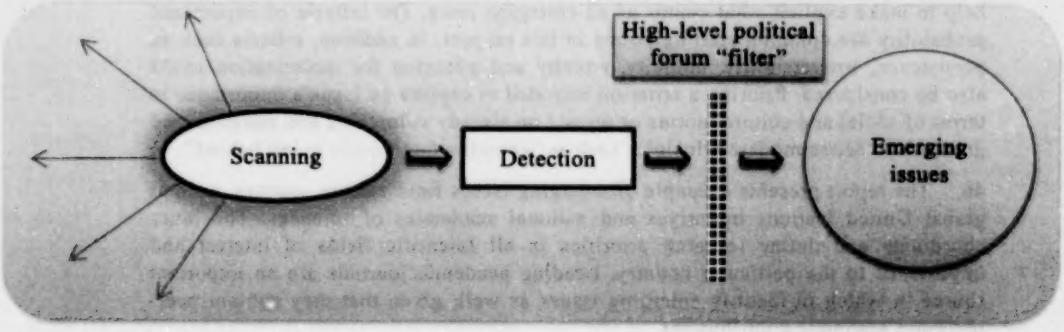
46. The report presents a sample of emerging issues from various sources, such as global United Nations initiatives and national academies of sciences. The latter coordinate and define research priorities in all scientific fields of interest and importance to the particular country. Leading academic journals are an important source in which to identify emerging issues as well, given that they contain peer-reviewed academic contributions.

47. In addition, a crowdsourcing initiative collected short science-policy briefs from scientists and researchers around the world, highlighting a specific issue, finding or piece of research with a bearing on sustainable development policy. The open call for the 2016 report resulted in 62 briefs accepted from all regions, compared with 202 in 2014 and 2015. The briefs received since 2014 cover all the Goals and address many of the linkages among them.

48. Even a guided scanning process for emerging issues is likely to generate a long list of issues for attention. Some form of clustering or categorization of the issues is necessary to facilitate analysis. Several commonly used frameworks were considered for the report. Largely due to its simplicity, the STEEP (social, technological, economic, environmental and political) framework proved to be more suitable than others in enabling an initial categorization of a broad-ranging list of sustainable development issues. However, expert input highlighted the usefulness of taking the additional step of differentiating between issues that relate to values, threats, opportunities, causal mechanisms or responses.

49. While a set of issues may satisfy a number of criteria, a function of the science-policy interface consists of a second step: identifying a smaller subset of policy-relevant issues. In the context of the high-level political forum on sustainable development, this entails identifying emerging issues that are appropriate for policymakers at the global level by filtering out issues of primarily local or national significance. Naturally, there are no neat, clear divides. What is local today can escalate to reach across borders tomorrow. There is room for enhanced dialogue between scientists and policymakers in the high-level political forum in two areas. One is the process by which a large number of issues are filtered to produce a smaller list for consideration by the forum. The second is the substantive contours of the issues that the forum could consider.

Figure II
Schematic representation for identifying emerging issues for the high-level political forum



50. Work done for the report included an attempt to make such a filtering process operational on a pilot basis by actually following the steps of producing a short list of issues that the high-level political forum could consider. This was done through multidisciplinary consultations with experts with knowledge and experience of various processes pertaining to the identification of emerging issues. The exercise involved an initial list of issues, drawn up on the basis of an online survey, which was discussed by experts in a face-to-face meeting. The top-ranking 20 issues resulting from a collective prioritization by scientists cover a broad range of areas, as follows:

(a) Establishing governance mechanisms for the Sustainable Development Goals, from the global (United Nations) level to the regional, national and local levels;

(b) Coping with the increasing impacts of climate change;

(c) Political instability and social unrest from increased income and wealth inequalities;

(d) Ensuring access to affordable, sustainable and reliable modern energy services for all;

(e) Accelerating the implementation of environmentally friendly renewable energy;

(f) The need to develop alternative economic models that decouple economic growth resource use and minimize environmental degradation;

(g) The need to protect and restore ecosystems;

(h) The persistence of poverty globally, including poverty within rich countries;

(i) Strengthening and enhancing the means of implementation and global partnership for sustainable development;

(j) The highly unequal distribution of household wealth across and within nations;

(k) Enhancing social protection and environmental protection in developing countries as a means of reducing inequalities and combating environmental degradation and climate change;

(l) Undertaking an integrated assessment of sustainable development pathways;

(m) Increasing the sustainability, inclusiveness, safety and resilience of cities and human settlements;

(n) The depletion of ocean fish stocks and the exploitation of marine resources;

(o) The time lags of several decades between scientific findings and policy action;

(p) Migration and all forms of movement of people across borders owing to changes in demographics, weather patterns and other factors;

(q) Promoting sustainable industrialization;

(r) The reduction of future agricultural yields owing to climate change, especially in Africa;

(s) Inadequate funding for health systems, especially in developing countries;

(t) Putting in place the blend of governance forms and approaches required for the achievement of the 2030 Agenda.

51. The report demonstrates that a wide range of sources, including documen analysis, crowdsourcing and expert meetings, can usefully be drawn on when identifying emerging issues in the context of sustainable development. The involvement of experts provided a valuable contribution to the discussion, not only in terms of building a list of emerging issues, but in contextualizing the process of issue identification.

52. The report confirms once again the complexity and interdisciplinary nature of sustainable development issues, which involve complex relationships between the economic, social and environmental dimensions. Scientific expertise can shed new light on the complexity and interconnectivity of emerging issues, thus strengthening the science-policy interface and possibly leading to more timely responses to emerging threats or the exploitation of new opportunities.

Taking stock of three editions of the *Global Sustainable Development Report*

53. Member States foresaw that a global sustainable development report would strengthen the science-policy interface for sustainable development at the United Nations Conference on Sustainable Development. Since then, the report series has become a platform and process for involving scientists and experts in United Nations deliberations on sustainable development. It has been open to contributions from all interested United Nations entities, organized science institutions and programmes and individual scientists, the only requirement being that contributions must be grounded in science. To date, 35 United Nations entities and more than 1,000 scientists have contributed. The open call for science-policy briefs alone resulted in 589 scientists from all parts of the world submitting 264 briefs. The

International Council for Science has played a crucial role in encouraging scientific contributions.

54. Taken together, the three editions of the report have contributed to the science-policy interface in two main ways. First, they have provided specific suggestions on how the high-level political forum on sustainable development could make the science-policy interface operational in practice in years to come. Chapter 1 of the 2015 report suggested a range of ways for the forum to enable constructive interactions between science and policymaking at the United Nations. Actions that the forum might consider spanned the space between science and policy, from the provision of policy-relevant data, analysis and information to actions that the forum could take to support enhanced dialogue between science and policy and to the translation of the results of science-policy dialogue into policymaking. All three reports devoted space to the identification of new and emerging issues, including their identification by all areas of science and how existing scanning processes may be combined to provide the forum with a usable list of topics to address.

55. Second, the reports have explored different perspectives on the Goals as an integrated and indivisible set of goals and translated those into chapters that adopted a diversity of focuses and approaches. The 2014 report provided templates for examining the progress made on sustainable development over the long term and for synthesizing insights from sustainable development scenarios contemplated by leading institutions and covering a wide range of thematic areas. This also included the examination of four nexus of issues (climate, land, energy and water; oceans and livelihoods; industrialization and sustainable consumption and production; and infrastructure, inequality and resilience), and cross-cutting issues (disaster risk reduction; innovative data and measurement approaches; and technology). These contributions provide illustrations of how policy-relevant conclusions can be gleaned from scientific assessments.

56. As the report process moves into a new phase after the activities of the high-level political forum on sustainable development in 2016, these specific contributions and the collaboration that has been built with more than 1,000 scientists can provide, along with the experience from other science-policy interfaces, an interesting basis on which to build an ambitious yet actionable multi-year report for the benefit of the forum.

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Synthesis of voluntary submissions by functional commissions of the Economic and Social Council and other intergovernmental bodies and forums

Note by the Secretariat

The present document provides a synthesis of the voluntary submissions prepared by functional commissions of the Economic and Social Council and other intergovernmental bodies and forums in response to the invitation by the President of the Council, contained in his letter to the Chairs of those bodies in April 2016, for them to offer substantive inputs to the high-level political forum on sustainable development, highlighting their contributions towards the implementation of the 2030 Agenda for Sustainable Development.

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I. Introduction

1. The present document is based on a synthesis of voluntary submissions by functional commissions of the Economic and Social Council and other intergovernmental bodies and forums in response to the invitation by the President of the Council contained in his letter to the Chairs of those bodies in April 2016.[1]

2. The invitation by the President of the Council is in line with the call in paragraph 85 of General Assembly resolution 70/1, entitled "Transforming our world: the 2030 Agenda for Sustainable Development", for thematic reviews of progress on the Sustainable Development Goals to be held at the high-level political forum on sustainable development. The thematic reviews will be supported by reviews by the functional commissions and other intergovernmental bodies and forums. In his letter, the President, the President invited recipients to reflect on the integrated nature of the Goals and to address the theme of the 2016 high-level political forum, "Ensuring that no one is left behind".

3. The invitation by the President of the Council reached 80 intergovernmental bodies, identified through an initial list prepared by the members of the Inter-Agency Technical Assistance Support Team.[2] The list comprises global platforms exclusively; intergovernmental organization-driven mechanisms were added only in the absence of a United Nations-led global process on a specific Sustainable Development Goal or target. The list should be regarded as an evolving tool to be aligned closely with the themes and focus of future sessions of the high-level political forum.

4. While no thematic review was undertaken for the 2016 high-level political forum, the call for input can be instructive in developing the process for thematic reviews in future years. It is envisioned that the thematic review will offer a qualitative analysis that complements the quantitative one contained in the mandated progress report on the Sustainable Development Goals, the Global Sustainable Development Report, which will provide more in-depth analysis and assessments of specific policy issues, with an emphasis on strengthening the science-policy interface.

5. The present report reflects how the functional commissions and expert bodies of the Council and other intergovernmental forums and bodies are responding to the theme of the 2016 high-level political forum and does not suggest a formal reporting link to the forum or modify any entity's mandate or governance.

"Ensuring that no one is left behind": the cornerstone of the 2030 Agenda

6. The commissions, platforms and other bodies that submitted inputs reflected on the theme of the 2016 high-level political forum.[3] The theme provides very broad

[1] See https://sustainabledevelopment.un.org/content/documents/10071Letter%20ECOSOC%20%20Pres_Functional%20Commissions.pdf.

[2] The Inter-Agency Technical Assistance Support Team prepared the list in 2014 in response to a request by the Open Working Group on Sustainable Development Goals. The list has since evolved to respond to various needs and demands and is available from: https://sustainabledevelopment.un.org/content/documents/5459Tentative%20list%20of%20review%20and%20coordination%20platforms.pdf.

[3] The full text of the submissions received and synthesized in the present report are available from: https://sustainabledevelopment.un.org/hlpf/inputs.

guidance and is subject to many interpretations, but is grounded in specific concepts. All people are at the centre of the 2030 Agenda and their well-being and ability to live safe, full and fulfilling lives are its animating force. No individual or group can be excluded or allowed to fall behind because of who they are or where they live. Furthermore, leaving no one behind goes beyond the national level and is a consequence of globalization and the interdependence of countries. For example, pressure is sometimes exerted on wages and labour standards through value chains, downstream environmental degradation and pollution and the transfer of financial and other resources away from the locations where they can most effectively help to ensure that no one is left behind. As the Secretary-General stated in his synthesis report on the post-2015 development agenda (A/69/700), "None of today's threats respect boundaries drawn by human beings, whether those boundaries are national borders or boundaries of class, ability, age, gender, geography, ethnicity, or religion". The threats are inclusive and so must the solutions be. The submissions considered in the present report take this commitment to heart.

7. Depending on their mandates and priorities, the commissions, platforms and other bodies used their inputs to address the theme from different angles, with some reflecting generally on cross-cutting approaches and concepts in general and others focusing on a specific Sustainable Development Goal or sectoral area. The cross-cutting concepts addressed in section II of the present report provide a framework to discuss proposals and policy recommendations of the high-level political forum contained in the inputs. Section III contains a number of the sectoral priority areas that the commissions, platforms and other bodies treated in their inputs in order to give the reader a sense of the scope and depth of the work that these entities are undertaking to move the 2030 Agenda forward.

II. Today's unequal world

8. Although the commissions, platforms and other bodies adopted different approaches to the theme of the 2016 high-level political forum, they began by addressing the current problem, namely, that nearly 1 billion people are left behind.

9. Some 1 billion people in developing countries live in extreme poverty, with two thirds of them living in rural areas. Millions of people are chronically undernourished owing to land degradation, declining soil fertility, unsustainable water use, drought and loss of biodiversity. The poorest and hungriest people worldwide are most vulnerable to external factors and shocks, including excessive commodity price volatility, climate change and a shift in trade policies and flows.

10. While the extraordinary growth and progress that the world has witnessed over the past decades has resulted in a significant reduction in extreme poverty and other forms of deprivation, economic growth has not been sufficiently inclusive. Overall, growth has been accompanied by widening inequalities within and among countries. For instance, notwithstanding their increased economic growth and participation in global trade since the turn of the millennium, least developed countries have made only limited and uneven progress in dynamically transforming and diversifying their economies.

11. In addition, many women, men and children continue to live on the margins of society, whether in rural areas or in cities. They lack access to infrastructure, resources and information, are excluded from decision-making and face

discrimination. Various factors hinder access by the poorest and most vulnerable to public services, including discrimination, affordability, geographical distance, physical environment, language, culture, a lack of accommodation for physical and mental disabilities and a lack of access to digital and other technologies. National, ethnic, religious and linguistic minorities continue to experience deep inequalities, while many migrants face significant discrimination, a lack of opportunity, exploitation, forcible displacement and even death. These inequalities threaten social cohesion, radicalize groups and create tensions, which can, in turn, engender crime and violence, political unrest and conflict. Development in this context, by definition, leaves many behind.

12. Rapid population growth is occurring mostly in countries facing the greatest challenges in ending poverty and hunger and ensuring health, education and equality for all. The benefits and challenges of an ageing population will affect all countries eventually, raising concerns about the ability to provide care and support for increasing numbers of older persons. Furthermore, the increasing concentration of human populations in cities and urban settlements translates into a need for better planning that is sensitive to the needs of the poor and takes into consideration environmental risks. For example, high population growth in the poorest countries can exacerbate the situation of people already left behind if meeting their needs is not prioritized. Cleaner cooking stoves serve as one example. Some 4.3 million people die prematurely annually from illnesses attributable to the household air pollution caused by the inefficient use of solid fuels for cooking. This presents enormous challenges to achieve Sustainable Development Goal 3, target 3.4.

13. There is a need for economic growth that reduces poverty and inequality and creates decent work for the poorest and most vulnerable groups in society, including young people, persons with disabilities, people living with HIV/AIDS, older persons, indigenous peoples, refugees and internally displaced persons, migrants and slum dwellers. Quality education, universal health care and a commitment to enhancing gender equality will help to shape an inclusive and supportive society in which sustainable development can be a viable path.

14. The pledge to leave no one behind extends to future generations and to the planet that they will inherit. This means that inclusive development must include a strong environmental component. Human activity is gravely threatening the world's climate, terrestrial ecosystems and oceans. Many economic and consumer values that served parts of society well in previous generations are no longer an option. The current rates of population increase and economic growth mean that the paradigm must shift in order to enable inclusive sustainable development.

A. High-level political forum: an apex platform for the 2030 Agenda

15. The inputs synthesized in the present report emphasize that the high-level political forum, as the apex platform for the review of and follow-up to the Sustainable Development Goals, will need to highlight cross-cutting elements of the 2030 Agenda and showcase specific policy recommendations that will ensure that no one is left behind. While a range of sectoral issues and individual Goals will be addressed in the sessions, the theme allows for the discussions and perspectives, as well as the policy recommendations that emerge, to share an emphasis on addressing inequality, taking a human rights approach, building good governance and peaceful

societies, incorporating all knowledge systems and traditions, promoting national and local policies that advance inclusive development and building data capacity.

Addressing inequality

16. It is very clearly stated in the 2030 Agenda that inequality among groups of people and among countries is not compatible with achieving the future we want. The quest for equality is at the heart of the theme of the high-level political forum and many of the inputs presented ways to move towards equality in a variety of contexts. Respondents noted that the forum should promote concrete policies and approaches that help to create a more equitable global community. Proposed focus areas that will help to ensure that no one is left behind include:

(a) Identifying those at risk of being left behind through consultations with all levels of government and all segments of civil society;

(b) A universal approach to social policy, including social protection floors, that is complemented by targeted measures to meet the special needs of those left far behind;

(c) Policies to promote economic growth and measures to encourage the equitable distribution of the benefits of such growth, including through progressive tax systems and collection;

(d) Policies to promote gender equality, including affirmative-action measures and quota systems. The multiplier effect of gender equality is well known, given that increasing women's access to land, livestock, education, financial services, technology and rural employment would boost their productivity and generate gains in agricultural output, food security, economic growth and social welfare;

(e) Preferential market access for least developed countries and targeting those most in need through "aide for trade";

(f) Expanding the productive capacity of least developed countries, complementing national-level efforts;

(g) Maintaining levels of official development assistance and providing countries in special situations with additional attention and support;

(h) Policies to promote equality in food security and fisheries management;

(i) Policies that level the information and communications technology (ICT) playing field through the regulatory environment and open-access approaches to publicly funded infrastructure;

(j) Expanded technical and vocational education and training, life-long learning programmes, universal preprimary education and others. The emphasis should be not only on access to education, but also on access to quality education for all, given that quality education is a profound driver of equality;

(k) Promoting young entrepreneurs, women-owned businesses and small and medium-sized enterprises in general, and working to close the productivity gap of those enterprises;

(l) Capacity-building to share information about sustainability requirements and standards and certification processes in order to enhance market access;

(m) Promoting public-private partnerships, including those involving small and medium-sized enterprises, and creating an enabling environment for trade and productive capacity.

Human rights-based approach

17. The concept of "leaving no one behind" is a human rights objective. No Sustainable Development Goal will be considered to have been met if any person, country or region has been unable to take advantage of the progress and opportunities that a successful achievement of that Goal would bring. People's human rights are undermined by a host of factors, including de jure or de facto inequality based on, among other things, national or ethnic origin, gender, sexual orientation, disability, age, religion, linguistic identity, economic status or employment. The high-level political forum should make a strong statement in support of creating a more equal world that respects human rights and dignity.

18. International human rights law places core obligations on States, including extraterritorial obligations, to ensure that the minimum essential levels of all economic, social and cultural rights are upheld as much as possible, even during times of crisis and recovery. The high-level political forum could promote policy actions that work to ensure that no one is left behind by addressing the following:

(a) Codification of the requirement that national and subnational governments should be required to review any legislation, policy or practice to ensure that it does not have a discriminatory or disproportionately negative effect on persons belonging to a minority or group that traditionally faces discrimination. Notions of direct and indirect discrimination should be addressed adequately;

(b) Full, effective and equal participation of all citizens in political and public affairs, including by eliminating laws, regulations and practices that discriminate directly or indirectly;

(c) Rights, perspectives and well-being of persons with disabilities should be considered in all international, regional and national development efforts, and persons with disabilities and their representative organizations must be involved in all stages of policy and programme design, implementation, monitoring and evaluation;

(d) Policies that ensure access to formal justice for a minority or group traditionally facing discrimination;

(e) Policies that ensure that the benefits of development and humanitarian relief programmes are distributed equally;

(f) Policies that address issues of accessibility for people with disabilities to social, economic and judicial services and those that integrate people with disabilities into all stages of policy and programme design and implementation. A standing forum on disability and development could be created within the Commission for Social Development, the Economic and Social Council or the General Assembly;

(g) Policies that protect marginalized groups against human rights abuses linked to transnational businesses and other enterprises and policies aimed at eradicating forced labour, child labour and human trafficking;

(h) Policies that reflect the Human Rights Council's guiding principles on foreign debt and human rights.

19. The universal periodic review mechanism of the Human Rights Council is another important avenue through which the Council could contribute to the thematic and country reviews of the high-level political forum.

Building good governance

20. Effective and transparent governance arrangements can provide institutional safeguards for inclusive development, and the high-level political forum can provide a platform for the exchange of successful approaches and challenges encountered. The rule of law and access to the formal justice system are crucial to combating inequalities and discrimination. The 2030 Agenda requires effective governance arrangements with regard to issues ranging from protecting human health to protecting biodiversity.

21. Governments, parliaments and the judiciary should enhance efforts to ensure that public administrations are held accountable for the impact of their work, including on the poorest and most vulnerable. The high-level political forum could therefore host a network platform in which the least developed countries express their capacity-building needs, and potential partners make offers of support.

Peaceful societies

22. Civil unrest and armed conflict destroy the possibility of sustainable development and undermine all attempts to leave no one behind. Forests, oceans, food security and cultural heritage are threatened by armed conflict. The high-level political forum should highlight conflict management and negotiations aimed at ending conflicts and civil unrest.

23. In addition, the high-level political forum could highlight:

(a) Ways to combat crime and violence in societies, including some forms of violence, such as female genital mutilation and so-called honour killings, that may be seen as acceptable to some and that prevent their victims from participating in any true development progress;

(b) The fact that children involved in the judicial system as witnesses, victims or offenders should receive child-sensitive treatment;

(c) The urgency of combating wildlife trafficking, which is often rooted in crime and violence.

Respecting and incorporating knowledge systems

24. Local and traditional knowledge has much to offer to the global community and is an important source of innovative solutions to advance the implementation of the Sustainable Development Goals. In order to ensure that no one is left behind, the perspectives and expertise of all communities, including indigenous peoples and those living in rural areas, must be incorporated. In food production, fisheries, forest management, water management, building climate resilience and livelihoods and other areas of the Goals, traditional knowledge can complement the physical sciences and data-driven approaches. In today's globalized world, small-scale fishers, farmers and business people need opportunities to build skills adapted to the

new globalized reality without losing the strengths and the identity of their culture and traditions.

25. The management of genetic and biodiversity resources, in particular, must incorporate the traditional knowledge of the indigenous and local communities that have traditionally had oversight of these resources. Equitable governance and collaborative management structures arising from local and indigenous traditions can also be incorporated into sustainable development plans and strategies. In the context of the World Heritage Sites, for example, indigenous people and local communities have an important role to play, recognizing both universal and local values.

26. Traditional and indigenous knowledge can provide significant lessons for attaining a land degradation-neutral world, moving from a "degrade-abandon-migrate" paradigm to one that reflects "protect-sustain-restore". Such a shift will help to engender equity for future generations.

Policies at the national and local levels that will help to ensure that no one is left behind

27. Until the 2030 Agenda is adapted to and implemented at the national and local levels, it remains only an abstract declaration of good intentions. Member States and their subnational authorities have made it clear that this process has two aspects: (a) adapting the Sustainable Development Goals to existing national and local sustainable development strategies and plans; and (b) adapting existing strategies and plans to the new agenda. In the context of the Goals, it is important that countries assign responsibility for their implementation to a ministry or office with significant authority and resources, such as the office of the head of Government or an independent national authority.

28. The high-level political forum could call attention to efforts among local authorities to develop "local 2030 Agendas" that place a special focus on ensuring that no one is left behind and that are supported by commensurate means of implementation, including capacity-building and the enhanced ability to mobilize resources, with responsibilities devolved incrementally, so that a lack of capacity does not stall implementation. Community-driven development should also be encouraged.

Need to build data capacity

29. The international community will know who is left behind and who is at risk only if progress can be accurately and transparently measured and assessed. Accordingly, high-quality comprehensive and disaggregated data are required across all sectoral areas covered by the Sustainable Development Goals. Developing and developed countries have indicated that they lack the data and statistics needed to track the full set of the Goals' indicators. For instance, an estimated 53 per cent of deaths globally are not registered owing to the absence of systems to capture civil registration and vital statistics. Adequate labour market information is lacking in many countries, especially in least developed countries. Furthermore, there is a shortfall in data on oceans and in many other areas. The situation in some developing countries is particularly urgent.

30. The high-level political forum will have an important role to play in highlighting effective approaches to data collection and analysis, in promoting policies guiding data and statistics issues and in forging partnerships for building data capacity and addressing gaps. It could highlight, in particular, the need for:

(a) Adoption of open-data policies, enabling the dissemination of public-use, geo-reference and anonymized microdata from various sources;

(b) Leveraging new data sources, including "big data", and technology to improve data collection;

(c) Promoting collaborative work by Governments, international organizations and others to assist developing countries in strengthening their data capacity;

(d) Enhanced data in food security issues;

(e) Strengthening data-responsive collection and analysis;

(f) Increased investments in labour market information and analysis capacities;

(g) Rationalizing the reporting requirements currently mandated by resolutions on a range of individual United Nations system organizations;

(h) Global and regional mechanisms to collect ocean data in the high seas and for international cooperation in marine research and observation.

III. Sectoral issues crucial to inclusive development: gaps and challenges, lessons learned and emerging issues

31. The integrated nature of the Sustainable Development Goals gives the 2030 Agenda its transformational potential and may make it a game-changer for the more than 1 billion people currently left in the shadows of global development.

32. To capitalize on the 2030 Agenda's integrated approach, the high-level political forum should look holistically at nexus issues, such as food and water, energy and water, and oceans and livelihoods. It should promote policies that enhance coordination in the management of forests, agriculture, food, land use and rural development, for example, and that promote a holistic approach to addressing food insecurity, malnutrition and unsustainable agriculture, climate change and other challenges.

33. The high-level political forum should prioritize approaches and policies that break down silos, both in institutional arrangements and in conceptualizing the problems and opportunities facing national and subnational governments. Economic growth must essentially be decoupled from environmental degradation, and poverty eradication and social inclusion must underpin all development efforts. The forum should promote innovative policies that combine these three elements of sustainable development in ways that promote equity and peace and maximize personal development and happiness.

34. Although the 2030 Agenda as a whole will be best implemented in an integrated and holistic way, individual sectoral issues will require ongoing attention to ensure that no one is left behind in the present generation or in future ones.

Gender equality

35. Gender equality and the empowerment of all women and girls is crucial to making progress across all Sustainable Development Goals and targets. Therefore, the full and effective implementation of the Beijing Declaration and Platform for Action is essential to ensuring that no one is left behind. National institutional arrangements tasked with guiding the work towards achieving all the Goals and targets should be enhanced to ensure that planning, decision-making, policy action, budgeting and monitoring reflect gender equality considerations and benefit all women and girls. National mechanisms for promoting gender equality and the empowerment of women and girls need to be an integral part of such national institutional arrangements and need to be strengthened and supported to influence their implementation across all policy areas.

36. Combating discrimination and violence against women requires a strong partnership between international and national institutions and civil society organizations. Enabling their work, including by ensuring their meaningful, open, inclusive and transparent engagement in the development and monitoring of relevant policies and programmes, should be a priority. Fully engaging men and boys as agents and beneficiaries of change in attaining gender equality and the empowerment of all women and girls and in becoming allies in the elimination of all forms of discrimination and violence against women and girls is also vital.

Addressing climate change

37. The 2030 Agenda recognizes climate change as a cross-cutting issue, affecting everything from food security to economic growth to peace and security. Its implementation will depend on effective actions to address climate change, while implementation of the historic Paris Agreement will, in turn, depend on the holistic approach to sustainable development described in the 2030 Agenda. Individuals, communities and countries will be left behind if aggressive and innovative climate change mitigation and adaptation actions are not taken. The high-level political forum should therefore highlight the links between addressing climate change and safeguarding not only the physical environment, but also human rights and social development.

38. The high-level political forum could provide valuable guidance on how to effectively align climate objectives with the broader sustainable development objectives and thereby deepen national buy-in. It will also be important for the forum to inject a sense of urgency into making progress on the response to climate change, given the pivotal importance of the next five years and of the urgent need to build resilience to the adverse impacts of climate change. In doing so, the forum could consider how best to promote readiness, including through the Copenhagen Green Climate Fund and related channels, and help countries to accelerate a transition to low-emission and climate-resilient development.

39. The impacts of climate change are already beginning to affect economic development in the most vulnerable countries and vulnerable populations within countries. The resilience of these economies to the adverse impacts of climate change can be built through adaptation policies, investments and disaster risk-reduction efforts.

40. There is an urgent need to assist vulnerable countries in accelerating their transition towards low-emission development pathways, given the multiple economic benefits flowing from such a transition. They should not be left behind in the fossil fuel-based economies of the past. Investments are also needed to build technical and scientific capabilities, such as observation networks, training and effective early warning systems.

Food security

41. Smallholders and family farmers are among the most susceptible to food insecurity and shocks of various kinds, but they are also central to attaining global food security. Connecting smallholders to markets, addressing land degradation, assessing the impact of rural transformation and urbanization on food security and nutrition and advancing sustainable agricultural development are areas requiring urgent attention. In addition, nutrition in changing food systems, livestock systems, socioeconomic inequality, the role of financial markets and pathways to sustainable food systems are emerging issues for food security and nutrition.

42. There is also a need to mainstream nutrition into all agricultural development policies and strategies at the national and regional levels. Policy coherence is also needed at these levels to mainstream climate change adaptation and mitigation principles into agricultural development programmes.

43. Food security is tied closely to issues of genetic diversity, peoples' livelihoods and lifestyles and production systems. Drivers of biodiversity loss are often linked to changes in production systems, such as agricultural intensification or land-use changes. Because many smallholders, especially mobile groups such as pastoralists, depend on common property resources for their livelihoods, access restrictions may lead to their marginalization.

44. Cross-boundary and cross-disciplinary efforts are necessary in order to make safe and nutritious food accessible to everyone. Standards, testing and methods of analysis may be beyond the reach of developing countries, which places them at risk of being left behind. Implementing tailored capacity-building programmes at the national, subregional and regional levels has been shown to lead to more effective and more harmonized norm-setting at the international and national levels.

45. Some additional issues to be considered in an integrated manner include.

(a) Food waste and its effects on malnutrition and food safety;

(b) Technological developments in the area of food safety. Food inspection, control and certification systems are likely to become more technological in developed countries, which poses the risk of creating an uneven playing field for trade and competitiveness;

(c) In many places, vulnerable populations also face issues relating to the poor governance of land and water tenure and risks associated with the loss of agricultural assets;

(d) Barriers and challenges at the technical level, such as a lack of knowledge of integrated approaches among farmers and extension agents, and at the policy level (for example, policies relating to production and access to natural resources and markets, are often focused on increasing production for global markets, with insufficient attention given to the impact on ecosystem services and

nutrition) can affect taking integrated approaches to crop production and diversification;

(e) Urbanization and climate change are two drivers that will require a retooling of food producers and regulators in order to continue to provide food for all;

(f) Malnutrition in all its forms has overtaken hunger in terms of the numbers of people affected worldwide. Malnutrition is linked closely to inequality and the sustainability of food systems and has complex political, economic, social and environmental factors involved in combating it;

(g) Rapid urbanization and the transformation of rural spaces are creating challenges and opportunities in relation to food security and nutrition;

(h) The agriculture sector is underperforming in many developing countries, in part because men and women do not have equal access to the resources and opportunities that they need in order to be productive;

(i) Commodity price volatility and, in particular, the extent to which food stocks could be used to reduce price volatility and stabilize markets;

(j) Market transparency and policy coordination; trade policy and the global trading system; agricultural investment in the context of long-term commodity price trends; climate change and its effects on commodity markets and trade flows; and the integration of smallholders and family farmers into markets and value chains.

Health

46. To ensure socially inclusive development, the health sector needs to strengthen its capacity to enhance data and statistics, increase access to quality care, support the role of caregiving, eliminate harmful practices, combat violence against women and introduce gender-sensitive policies. Reinforcing key health system functions in the improved management of environmental determinants, such as water and sanitation, disease surveillance and the preparedness for and response to extreme weather events can avert some of the potential burdens to health systems and economic progress. There is a strong relationship between the status of women and their education and health outcomes for the whole family and community.

47. Air pollution has been identified as the world's greatest environmental risk to health. The lack of access to clean water and sanitation also reveals environmental factors that affect human well-being to a large extent. Exposure to waste and chemicals represents another environmental area requiring further attention. The degradation of ecosystems also presents important links to human well-being, with such degradation resulting in major health-related consequences.

48. With regard to health systems, the fragmentation of national ones is of great concern. The situation is exacerbated when each programme produces a separate estimate of financial needs, geared primarily to advocacy rather than accurate budgeting. Addressing health system weaknesses is of the utmost importance. Access to services is low for rural populations and the poor, and management inefficiencies account for the substandard delivery of care. Health financing, inadequate human resources, the inadequate investment in research and development, inadequate medical products, the lack of health system resilience and

inadequate information and accountability are significant weaknesses that prevent access to quality health services.

Education

49. Education is one of the most important drivers of equality. In many cases, a quality education means the difference between joining the forward momentum of development or being left behind.

50. Nevertheless, education is not a priority in many national budgets. Pre-primary education and adult literacy, in particular, remain substantially underfunded by both Governments and donors. In addition, educational resources, such as textbooks and teachers, tend to be concentrated in wealthy, urban areas and schools. The quality of education often varies and tends to reproduce structures of marginalization and discrimination. This situation is further exacerbated by the growth of private and fee-charging schools, effectively excluding those who cannot pay. Gender equality in education requires urgent attention. Greater national and global efforts are needed to bridge the gaps in measuring equity and inclusion and quality and learning outcomes.

51. The educational opportunities for children and young people are increasingly destroyed by conflict, epidemics and natural disaster. Many of the most significant gaps in education are found in conflict and emergency situations. It is crucial to maintain education during emergency, conflict, post-conflict and post-disaster situations and to meet the educational needs of internally displaced persons and refugees.

52. Ensuring equitable progress in education is vital if no one is to be left behind, as the following lessons learned demonstrate:

(a) Education is critical to enabling an escape from chronic poverty. For some people, poverty is transitory, but more vulnerable individuals remain poor for long periods of time, passing on their poverty to their children;

(b) Education is a health intervention. Educated people are better informed about specific diseases, take measures to prevent them or act on early signs and tend to seek out and use health-care services more frequently and more effectively;

(c) Education can be part of a social transformation process involving men, women, boys and girls towards developing a more gender-just society;

(d) High-quality education enables people to make informed judgments about issues that concern them and to engage constructively in national and local political debates;

(e) By abolishing tuition fees at the primary school level, countries were able to increase enrolment rates and reach groups that had been excluded;

(f) Teachers play a critical role. Their training, equitable allocation in urban, rural and other underserved communities, professional development, remuneration, engagement in social dialogue and support are essential.

Water and sanitation

53. Striking inequalities are evident with regard to water, showing that half of humanity is still left behind. Access to basic sanitation is recognized as a key

challenge in the twenty-first century. Global indicators to monitor the evacuation and treatment of wastewater and excreta are not in place. By 2025, two thirds of the world's population is expected to live in water-stressed regions owing to climate change, inefficient water distribution and its use and over-use by the agriculture, energy and other sectors. Global water withdrawals have tripled over the past 50 years. The scientific information available shows that water demands may reach "planetary boundaries" in the coming decades. There is therefore an urgent need for more sustainable water use and improved cooperation and synergies between sectors.

54. The gaps, priority areas of actions, risks and challenges with regard to water include the following:

(a) Capacity in terms of human resources, expertise and infrastructure remains a major challenge, and funds assigned for training by Governments, water utility companies and funding institutions are insufficient;

(b) Improvements are required in the efficiency of water-energy systems across sectors to cope with the increasing demand on water and energy;

(c) Sustainable planning, building and operating of water and energy infrastructure, while preserving and improving water resources, the ecosystems that they support and social aspects;

(d) Stakeholders across sectors should be empowered to participate in decision-making, cooperate and share information to foster resources and maximize the sharing of benefits;

(e) Water pollution and pollution caused by energy production can jeopardize local residents' health and undermine companies' reputations;

(f) Water-related responsibilities are fragmented across authorities and levels of government, which raises the question of vertical and horizontal coordination for the effective implementation of the Sustainable Development Goals relating to water.

55. Transboundary cooperation overall in the pan-European region has improved; notably, during the past two decades the cooperation between its western and eastern parts has developed and intensified, contributing to a reduction in the potential for conflict and friction. Experience shows that water can be an element of cooperation, despite tensions in other areas.

56. In recent years, water is increasingly used as a weapon in conflicts, including by terrorists. Given that access to water and sanitation is recognized as a human right, such manipulation of water is unacceptable.

57. Water pollution is also increasing in many parts of the world owing to economic development, discharges of untreated or insufficiently treated wastewater, intensive agriculture (diffuse pollution), mining and new micropollutants, such as antibiotics, placing downstream populations that are dependent on water at risk.

Migration

58. Resettlement is a vital international protection tool and a durable solution for the most vulnerable populations. The context in which resettlement takes place is becoming increasingly fraught. Sound border management is critical to ensuring the

security of countries and the safety and dignity of migrants, as well as facilitating trade and the movement of cross-border communities.

59. A key lesson learned is that the origins and causes of migration are so complex that one-dimensional migration policies, such as those focusing on security aspects without substantive collaboration, are likely to be ineffective. Countries frequently have well-managed migration policies in which a body in their Government deals directly with migration and ensures that migration is mainstreamed across different ministries, that migrants are not left behind and that, with policies to protect their basic human rights, migrants can be agents of development. In addition, migration issues cannot be addressed solely in quantitative terms. It is therefore extremely important to take into consideration the qualitative context in which the migrant finds himself or herself.

Heritage

60. Unfortunately, most countries have not yet developed policies and programmes to integrate a sustainable development perspective into their heritage management strategies, with a specific focus on the most vulnerable groups within society. Cultural and natural heritage are increasingly exposed to a variety of threats, including insensitive development, natural hazards and conflicts, which are progressively eroding this irreplaceable asset and compromising its potential to contribute to sustainable development.

61. Cultural and natural heritage have played a critical role in supporting the poorest and most vulnerable groups in developing countries. Examples include a rise in income and employment at many World Heritage Sites associated with sustainable tourism initiatives and political stability, but also the strengthening of the resilience of communities to disasters through the maintenance of ecosystems. Key lessons learned include the inherent ability of heritage to ensure ownership and participation in development processes and to facilitate dialogue and mutual understanding among diverse groups within society.

Chemicals

62. The enhancement of synergies within the chemicals and waste regime means that capacity, expertise and resources have been pooled. The fact that the Conferences of the Parties of the Basel, Rotterdam and Stockholm Conventions, meet has increased the capacity and expertise of developing countries to participate, reduced transaction costs and facilitated the adoption of coherent guidance across the three conventions.

63. The high-level political forum could highlight a specific area of concern, namely, the lack of political consensus for a number of chemicals, even after clear scientific guidance on the part of the Chemical Review Committee. The lack of consensus has resulted in:

(a) Limiting support for many developing countries and countries with economies in transition that lack national infrastructures and the capacity to assess and manage the risks posed by widely produced and traded hazardous chemicals;

(b) Increased vulnerability of those countries to the potential risks that hazardous chemicals and pesticides pose to the environment, human health and wildlife;

(c) Lack of support for the development of risk-management strategies to chemicals recommended by the Chemical Review Committee for listing, including a number of other listed chemicals;

(d) Insufficient participation of industry in the development and availability of alternatives, although listing does not lead to an effective ban under the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

64. Moreover, there are gaps in the international chemicals and waste regime that require urgent attention. Developing countries are not yet sufficiently protected against the risks and threats of heavy metals, which pose a challenge for many countries, given that the risks of new chemicals and technologies are not yet fully understood.

Industrialization

65. Because available resources are expected to continue to fall short of development needs, private investment, development finance and export earnings remain, by far, the greatest potential sources of funding for long-term industrial development and economic growth. In this context, increased national resource mobilization efforts, on the basis of fostering a favourable business environment in which the private sector can thrive and actively engage, will be central to strengthening the financial capacity of developing countries. Tailored regulatory and incentive frameworks that enable the alignment of commercial interests with environmental and social aspirations will present both a challenge and an opportunity for Governments in designing and implementing eco-industrial policies.

66. The effective mobilization of multi-stakeholder partnerships is central to the delivery of the Sustainable Development Goals. Available data show strong linkages between manufacturing and lower levels of poverty, better income distribution and better human development rankings. The larger the share of high-tech industries, the greater the positive impact that industrialization will have on social inclusiveness in terms of job creation, income equality and broader social development. Against a backdrop of growing employment in the informal sector, there is an urgent need to support the creation of decent jobs for those unemployed, inactive or outside formal training or education.

67. Harnessing clean technologies, promoting technology transfer and innovation, diversifying funding and facilitating partnerships for climate-resilient development are key to the implementation of the Sustainable Development Goals. Given that rapid urban growth is occurring mainly in developing countries, industry plays an important role as a decent job creator. Industry therefore has the great potential to promote inclusiveness in cities. Smart growth strategies that foster special economic and industrial zones and cities, research hubs and industrial estates enable the pooling of resources for economic growth while mitigating environmental degradation in urban settings. An inclusive and sustainable approach to industrial policy can contribute to disaster risk reduction efforts by strengthening economic and environmental resilience and human security, building institutions and providing sustainable energy for the poor.

Oceans

68. Our knowledge of the oceans is sparse, and many developing nations still lack the basic scientific infrastructure, human skills and technological advancement needed to derive benefits from the oceans in a sustainable way. Global intergovernmental cooperation is required to fill knowledge gaps and build the capacity of developing nations, in particular least developed countries and small island developing States. To provide the technology needed in order to meet the Sustainable Development Goals and targets, knowing the actual demands and disparity in capacity is indispensable.

69. Many small-scale fishing communities continue to be marginalized and left behind, in particular communities of indigenous people and ethnic minorities. Furthermore, the development of the fisheries sector over the past three or four decades has, in many cases worldwide, led to the overexploitation of resources and threats to habitats and ecosystems. Small-scale fishing communities also commonly suffer from unequal power relations owing to conflicts and competition with large-scale fisheries and other sectors. Pollution, environmental degradation, climate change impacts and natural and human-induced disasters add to the threats facing small-scale fishing communities.

70. Valuable lessons learned with regard to fisheries include:

(a) Formal integration of small-scale fisheries into rural development policies;

(b) Adoption of inclusive and participatory approaches, the promotion of cross-sectoral linkages and fostering an environment that promotes collaboration and conflict-resolution mechanisms among stakeholders;

(c) Promotion of gender equality, the integration of gender concerns and perspectives and the empowerment of women;

(d) Equal consideration given to environmental, resource and community rights and sustainability and the promotion of comanagement and community-based management arrangements, including for marine reserves and protection areas that are informed by a precautionary approach;

(e) Use of a wide range of information for decision-making, including bioecological, social and economic data, from scientific, local and traditional sources;

(f) Respect for cultures, existing forms of organization, traditions, local norms and practices, as well as the customary or otherwise preferential access to fishery resources, land and territories by small-scale fishing communities, including indigenous peoples;

(g) Assurance that policies and interventions on disaster risk reduction and management and climate change adaptation respond to the specific needs of small-scale fisheries, recognizing that special considerations must be given to fishing communities living on small islands that are particularly vulnerable to disasters and climate change.

71. Vulnerability to climate change and ocean-related disasters, on the coast and inland, can be reduced through sustainable development practices leading to increased resiliency and the development of effective early warning systems

including for the oceans on multiple timescales. Integrated ecosystem approaches and the diversification of livelihoods and enterprise can improve sustainable development in the three pillars by providing the benefits of increased productivity and the resilience of living marine resources, which can lead to increased incomes and reducing the vulnerability of the coastal poor.

72. There is also need to conserve nature, especially ecologically and biologically sensitive areas, in the context of the multi-use planning of ocean space. Private sector use of the oceans is expanding rapidly, which has an increasingly global impact on the marine environment. Given that industry is the primary user of the oceans, it is well placed to develop and implement solutions in response to society's increasing demand that marine ecosystem use be sustainable and that is impacts be reduced. Developing public-private partnerships could be a good way to find solutions to these impacts and improve the collection of ocean data.

Forests

73. It is widely recognized that most of the challenges facing forests come from outside the sector and that appropriate responses require coordinated approaches across sectors. Achieving the closely interdependent Sustainable Development Goals will require looking at sustainability issues within and across the agriculture, forestry and fishery sectors in an integrated manner, taking into account trade-offs and synergies across sectors and sustainability dimensions.

74. Forests are able to deliver multiple benefits only if managed sustainably and in an integrated manner. Other key lessons learned are the following:

(a) Forests are more than trees. They are fundamental to food security and improved livelihoods and contribute to increasing the resilience of communities;

(b) Integrated approaches to land use provide a way forward for improving policies and practices to address the drivers of deforestation, address conflicts over land use, capitalize on the full range of economic, social and environmental benefits of integrating forests with agriculture and maintain multiple forest services in the landscape context;

(c) Forests are an essential solution to climate change adaptation and mitigation. Sustainably managed forests will increase the resilience of ecosystems and societies and optimize the role of forests and trees in absorbing and storing carbon, while also providing other environmental services;

(d) New partnerships are needed among the forest, agriculture, finance, energy, water and other sectors, as is engagement with indigenous peoples and local communities;

(e) More investment is needed in forest education, communications, capacity-building, research, including the impact of climate change on forest health and diseases, and the creation of jobs, especially for young people.

75. The following factors may have a considerable impact on forests: population growth; the increasing demand for land for food production and infrastructure; growing urbanization; the growing demand for energy; the impact of environmental deterioration, including climate change; biodiversity loss; water scarcity and desertification; human-induced calamities, such as wildfires; unsustainable and illegal management practices; civil unrest and armed conflicts; unsecure ownership

and tenure rights; weak legal and governance systems; and a lack of stakeholder involvement.

Desertification

76. The world is encountering unprecedented rates of land degradation and ecosystem loss. Arable land is being lost at 30 to 35 times the historical rate. Drought and desertification are on the rise as a result of extreme weather events and unsustainable land use. Some 22 per cent of animal species are at risk of extinction because of habitat destruction. Land degradation severely constrains agricultural productivity and threatens food security and land-based livelihoods, with particularly serious consequences for the livelihoods of rural dwellers in the more marginal agricultural areas. Human-induced land use change has also caused devastating economic losses.

77. Communities living on degraded land are likely to migrate in the event that the land is no longer productive. Land abandonment is expected to drive further unplanned urbanization, as rural people move to the cities, or resource competition and conflict, as individuals or communities move to land already occupied.

78. Efforts to restore and manage our land resources more sustainably will require investment, enabling policies and incentives and multi-sectoral land use planning. The multidimensional scale and aspects of land management call for more coordination and cooperation in planning and decision-making among different government agencies, especially those responsible for agriculture, livestock, forestry, land and water resources, the environment, science and technology, finance, planning, legislation and tourism.

Economic growth

79. The main driver of sustained, inclusive and sustainable economic growth is the transformation of low productivity and poorly rewarded work into higher productivity and decent jobs. Against this backdrop, the slow pace with which decent work opportunities are currently created in most parts of the world represents a major shortcoming, in particular in countries where rural poverty is high and informal economies are large.

80. The creation of a macroeconomic environment conducive to job creation and to formalization should be a matter of the utmost importance. The informal economy absorbs more than half of the global workforce and includes more than 90 per cent of small and medium-sized enterprises. As a result, millions of workers and economic units worldwide suffer from poor working conditions and a lack of labour rights. Low-quality employment, inadequate social protection, poor governance and low productivity are some of the obstacles that workers and enterprises face when caught in the informality trap. Steps towards enhancing collaborative approaches and partnerships to tackle the challenge of increasing the employment of young people are also needed.

81. Women continue to face major barriers to equality in the world of work. In many countries, employment participation and earnings are much lower for women than for men. Weak growth in both the quality and quantity of jobs also interferes with efforts to ensure labour market access for a wide range of vulnerable groups, including people with disabilities and migrant workers. The extension of social

protection floors and the eradication of child labour and forced labour should be considered core priorities, along with the protection of workers' rights and the promotion of healthy and safe work environments.

82. The respect for fundamental labour principles and rights is essential for an integrated approach to leaving no one behind. Social dialogue among Governments and employers' and workers' organizations is an extremely valuable mechanism to identify the barriers to sustainable development and the policies and programmes needed to overcome them.

Trade

83. Successive food price spikes in recent years have highlighted the vulnerability of international markets to supply and demand shocks and focused analytical attention on the relationship between stocks and prices. In addition to the issue of price volatility, other areas that require greater attention include market transparency and policy coordination; trade policy and the global trading system; agricultural investment in the context of long-term commodity price trends; climate change and its effects on commodity markets and trade flows; and the integration of smallholders and family farmers into markets and value chains.

84. Small and medium-sized enterprises need to diversify exports to be included in global value chains and attain inclusive economic growth, as well as spread gains across all strata of society by promoting such enterprises by women and young people. There is also a need to overcome the obstacles that hinder their inclusion in global value chains, such as the ability to meet buyers and receive information about sustainability requirements, standards, certification processes and overall market access conditions.

Telecommunications

85. Information and communications technologies can enhance education, reduce youth unemployment and promote social and economic development. The rising cost of providing even basic ICT services means that universal service has become more expensive to realize. Soft measures encouraging the private sector to become ICT accessible are not going to produce all the expected results; mandatory legislation is also required. Efforts to address the gender digital divide, ICT accessibility for persons with disabilities and ICT applications to deliver a wide range of basic services in remote and rural areas will be critical to ensuring that no one is left behind.

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Multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals: summary by the Co-Chairs

Note by the President of the Economic and Social Council

The President of the Economic and Social Council has the honour to transmit to the high-level political forum on sustainable development the Co-Chairs' summary of the multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals, held in New York on 6 and 7 June 2016. The Co-Chairs of the forum, the Permanent Representative of Kenya to the United Nations, Macharia Kamau, and the Science and Technology Adviser to the Secretary of State of the United States of America, Vaughan Turekian, were appointed by the President of the Council. The summary is being circulated pursuant to paragraph 123 of the Addis Ababa Action Agenda (General Assembly resolution 69/313) and paragraph 70 of the 2030 Agenda for Sustainable Development (Assembly resolution 70/1).

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Co-Chairs' summary of the multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals

I. Introduction

1. Pursuant to General Assembly resolution 70/1, on 6 and 7 June 2016, the President of the Economic and Social Council, Oh Joon, convened the first annual multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals. As a component of the Technology Facilitation Mechanism, the forum is a venue to discuss cooperation in science, technology and innovation around thematic areas pertaining to the implementation of the Sustainable Development Goals, bringing together all relevant stakeholders to actively contribute in their areas of expertise. The forum provides a venue for facilitating interaction, matchmaking and the establishment of networks between relevant stakeholders and multi-stakeholder partnerships in order to identify and examine technology needs and gaps, including with respect to scientific cooperation, innovation and capacity-building, and to help to facilitate the development, transfer and dissemination of relevant technologies for the Goals.

2. The Permanent Representative of Kenya to the United Nations, Macharia Kamau, and the Science and Technology Adviser to the Secretary of State of the United States of America, Vaughan Turekian, co-chaired the forum. The forum was prepared by the United Nations inter-agency task team on science, technology and innovation for the Sustainable Development Goals, with the support of 10 representatives from civil society, the private sector and the scientific community. The President of the General Assembly, Mogens Lykketoft, and the Secretary-General made statements at the opening of the forum.

3. The forum was well attended, with more than 600 participants representing 81 Governments and more than 350 scientists, innovators, technology specialists, entrepreneurs and civil society representatives. The forum included innovative seating arrangements and interactive sessions that provided adequate time for discussion among all stakeholders. Pursuant to its mandate, the forum experimented with ways to promote networking and matchmaking, including online discussions, an exhibition and side events.

II. Highlights of the discussions at the forum

Mobilizing science, technology and innovation for the Sustainable Development Goals

4. The 2030 Agenda for Sustainable Development and the Sustainable Development Goals contained therein are disruptive. They imply a radical departure from business as usual. Over the coming 15 years, the global community will have the important task of taking full advantage of science, technology and innovation for sustainable development. Science, technology and innovation are central to the advancement of the 2030 Agenda and the Goals. They will need to be responsive to the needs of the Goals and should be conceived as means of achieving them, not as ends in themselves. Not every problem has a high-technology solution, and not all

technological change is conducive to sustainable development. Going forward, it will be critical to assess how technology can be mobilized to provide solutions to our greatest challenges. In that respect, various sources of knowledge, including indigenous knowledge, should be considered. All that is likely to require new ways to approach the science-policy interface.

5. The current technological revolution is having an impact on all disciplines, industries and the world's economy. Rapid advances in information and communications technologies (ICT), energy technology, biotechnology, nanotechnology, neurotechnology and other technologies will affect all sectors of the economy, including manufacturing, construction and transportation. Taking advantage of those technologies to advance social and economic inclusion, as well as to promote environmental sustainability and peace, will call for a transformation of societies. New technologies will emerge, while those that are currently nascent will be commercialized. With respect to the role of science, technology and innovation, it is necessary to look beyond the coming 15 years, given that the transformations that are required have longer time horizons.

6. The Technology Facilitation Mechanism should mobilize science, technology and innovation solutions for the 2030 Agenda and the Goals in order to achieve transformative change in livelihoods across the world. In that context, the forum needs to continue to work in a practical operational mode.

Inclusive technology that leaves no one behind

7. The imperative of the 2030 Agenda is to leave no one behind. That imperative should underpin the way in which we think about science, technology and innovation. The focus should be on how social needs can drive and transform science, technology and innovation, a shift from the dominant model of science, technology and innovation being "applied to" social problems. That entails new ways of looking at the interface between society and science, technology and innovation, new kinds of social expertise to be associated with science, technology and innovation activities, institutionalized community and civil society participation and new kinds of science, technology and innovation policy and practice overall.

8. Science, technology and innovation capabilities are not evenly distributed across countries. A lack of adequate technological infrastructure, such as limited Internet access, has held back many developing countries. It is important to promote the development and use of ICT, especially in the least developed countries, landlocked developing countries and small island developing States.

9. Existing technological divides have an impact on vulnerable groups such as women, indigenous peoples and persons with disabilities. There remains a gap between those that can scale up technologies (such as large corporations) and those that produce innovations that serve the poor. The effective implementation of the Goals will require identifying and addressing major knowledge gaps across domains, disciplines and regions.

10. Technological change is not neutral; it can favour either labour or capital. Technological change is, in essence, disruptive and, in the short term, creates winners and losers. While disruptive technologies will be critical to a transformation towards sustainable development, their benefits may disproportionally go to people in the countries that innovate or to a small fraction of the population. Going

forward, it will be essential to ensure that those who are vulnerable and marginalized are not left behind in that process and share in the benefits and knowledge acquired. For example, efforts are needed to enhance skills and social protection for the labour force, given that jobs are threatened by the digital revolution. Small and medium-sized companies need to be able to participate in the digital revolution, and local innovation and entrepreneurship systems need to be able to fully participate in the implementation of the 2030 Agenda.

11. Enabling access to technologies will be a critical element of a strategy to fully mobilize the potential of science, technology and innovation for the Goals. Technological advances should benefit everyone, not just a few. Ensuring the inclusive participation of citizens, especially underrepresented groups such as women, in innovation and entrepreneurship is essential. Technological tools, if adequately provided to communities and peoples, can help them to develop solutions that reflect their own priorities. Technology should aim to make communities more cohesive rather than generate social disruptions.

12. Research into cutting-edge, disruptive technologies should be accompanied by a consideration of how to adapt existing technologies to make them less expensive and more accessible to the poor (i.e., "frugal innovation") and repurposing existing technologies for new situations (i.e., "hybrid innovation"). Attention should also be paid to the contribution to the Sustainable Development Goals of technologies in the middle of the spectrum between low-technology, grass-roots technology and high-technology; those technologies often are under intellectual property protection.

Striking the right balance between "hard" and "soft" technologies

13. Efforts should focus not only on developing and deploying highly advanced and efficient "hard" technologies, but also on supporting "soft" or "social" technologies. Social technologies are critical to changing mindsets, attitudes and behaviour. Better understanding the determinants of technology adoption by people and communities is important in that regard. It is also important to take into account the resistance of professional communities to the adoption of new or innovative approaches. Social technologies are also critical to reaching those left behind, as are public policies and social and community participation. For example, in the health sector, instituting a national vaccination day or finding practical ways to bring the right medication to people who need it in time may be as important as research into new vaccines.

14. In order to work, technologies have to be adapted to local contexts and culture. Young people can help to adapt technologies to local contexts and translate them into local languages, in particular in marginalized communities. The concept of "technology readiness" and associated models used to evaluate readiness can help to assess the potential of technologies in different environments, given that on-site experimentation is rarely possible. The concept of readiness should fully incorporate ethical and cultural dimensions.

15. Technology in isolation has limited transformative impact. Providing the right incentives and empowering communities are important for leveraging technologies, as illustrated by many examples featured at the forum. In the case of food waste, an example presented emphasized that, in addition to the use of straightforward technology to match producers of food waste with the demand for food, in order for

the solution to succeed, it was necessary to work on the incentives faced by firms (such as helping firms to take advantage of tax deductions for donating food).

Strengthening science, technology and innovation capacity, science, technology and innovation literacy and human skills

16. People are a nation's greatest natural resource. Actions and policies that strengthen science, technology and innovation and human capacity-building in every country are needed to create knowledge-based, innovative societies that utilize scientific evidence to help to inform policy and inspire science-based solutions.

17. Enhancing science awareness among the general population is important to creating a culture of innovation in society. There is a need to proactively foster the next generation of researchers and scientists and to foster the contribution of citizens to scientific discovery.

18. Youth participants highlighted a number of challenges that need to be addressed to effectively bring more young people into science, technology and innovation and sustainable development. Learning how to learn is critical. It is important to create environments conducive to active learning that evaluate students beyond their grades and their classrooms, that inspire and facilitate early access to science, technology and innovation and that take young innovators seriously. Schools and other learning environments should aim at educating creative problem solvers and critical thinkers and be responsive to gender and other social markers to create a level playing field for both boys and girls. Formal education in science, technology, engineering and mathematics needs to be supported and its reach widened in order to build science, technology and innovation literacy among young people. Out-of-school environments are also important, as are innovative curricula that incorporate creativity, collaboration and the building of problem-solving skills, which are often not foci of formal curricula but are critical to powering innovative mindsets and creating the partnerships necessary to mobilize talent and resources to tackle development challenges. New technologies can help to educate children who have no or inadequate access to school and to promote literacy. Democratizing access to science, technology and innovation, including access to computer science education that teaches young people coding, would stimulate millions of innovators around the world.

19. Governments may need to redesign science systems so that they stimulate research that addresses problems of relevance to sustainable development. That needs to be done in a way that preserves the integrity of scientists and the scientific process. Changes in educational systems and curricula delivery can be considered as part of the strengthening of enabling environments to support science, technology and innovation development.

Enhancing the coherence of science, technology and innovation policy

20. The coherence of science, technology and innovation policy needs to be advanced at all levels in order to accelerate technology transfer, technology diffusion and innovation in a manner that is commensurate with the ambitions of the Goals. Coherence must also be achieved between science, technology and innovation policies in general and those focused on supporting the 2030 Agenda. In that endeavour, Governments will need to proactively collaborate and innovate with

scientists, experts, the private sector, communities, civil society and users of technologies.

21. Achieving all the Goals will require integrated assessment tools to find desirable pathways that resolve trade-offs and maximize synergies. It will require robust legal environments that promote innovation. Those involve not only science, technology and innovation policy, but also trade policy, intellectual property protection and other key areas. It is important to put in place country-specific policies on intellectual property rights that make sense for all involved. One example highlighted in that regard was the new intellectual property rights policy of the Government of India. The benefits of encouraging open data and open innovation were emphasized in order to share data and improve access to research. Other examples discussed at the forum included identifying emerging science, technology and innovation issues, supporting education among and research by stakeholders on the intellectual property regime, providing facilities in universities for all students to develop entrepreneurship efforts, building infrastructure to ensure that young people and others are able to engage and interact with policy and community leaders and examining Internet protocols in order to harmonize them.

22. Coherent policies should lead to coordinated approaches to enhance partnerships and proactively involve the private sector, which is already working on low-cost scalable technologies and the Goals. Policies could encourage grass-roots solutions connecting innovative people with technologies and finance. Policies must be put in place to support innovators operating outside formal institutions and structures, for example those who are out of school and are innovating in order to meet local community needs.

23. Coherent policies must lead to adequate and diverse funding of science, technology and innovation in order to plant the seeds for innovative research. Indeed, funding agencies and ministries set the agenda for what they want their scientists to pursue. There are countless examples of successful non-governmental organizations and companies that have emerged out of government seed funding. A balance needs to be struck between funding for disruptive and high-performance technologies on the one hand and inclusive innovation that focuses on the needs of the poor on the other. The balance will differ between countries and between the private and public sectors. The Goals themselves reflect the need for both types of innovation.

Science, technology and innovation action plans and technology road maps

24. Science, technology and innovation policies need to do a better job of linking to and tackling development challenges. Flexible science, technology and innovation action plans and technology road maps at the national and global levels are needed to support the achievement of the Goals. They could be a means of uniting all interested stakeholders, including financiers, to work towards common goals and to benefit from periodic scientific analysis. They require leadership and need to be adequately resourced. Whole-of-economy approaches will be needed. Innovation ecosystems have to function effectively, be economically sustainable and provide shared value. For example, Mauritius has made major strides in defining a strategy for a transition to an ocean-based economy, based on the precise identification of the required economic activities (including shipping, aquaculture, the seaweed industry, tourism and new energy and water technologies), underlying

technology developments and social requirements. The design of science, technology and innovation action plans should be inclusive and involve all stakeholders from the outset.

25. Participatory technology assessment and prospective analysis (e.g., of the impact of technologies on employment) could be useful. There is a role for foresight and horizon scanning exercises going forward, including for examining technologies that are currently risky and unproven. A project on the world in 2050 was mentioned in that context.

Creating robust science advisory ecosystems at all levels

26. Science and technology need to work with society in the co-design and co-production of solution-oriented knowledge and in the process of social innovation. In that endeavour, scientists, decision makers, policy analysts, the private sector and citizens need to work together closely. Each society can benefit from strengthening its science-policy interface and creating what may be termed a "science advisory ecosystem", whereby its scientific and technological community can provide input and advice on public policy issues. The creation of robust science advisory ecosystems at all levels could help societies to inclusively leverage their scientific and technological communities to provide high-quality, independent and credible scientific and technological insight. Science advisory ecosystems are needed globally and nationally to assess progress with regard to the 2030 Agenda and the Goals and to identify gaps in policy and science.

27. National experiences with creating science advisory ecosystems were shared. The Government of Japan recently created the position of science adviser to the Minister for Foreign Affairs. China described major science policy efforts aimed at building the social responsibility of scientists and a social culture of innovation and experimentation. The Brazilian National Institute of Science and Technology for Innovation in Neglected Diseases emphasized the importance of social and financial innovation.

Using information and communications technology tools, forums and platforms to support science, technology and innovation

28. To achieve the Goals, we need a paradigm shift in how science interfaces with technology. The Internet is transformative and provides a model and platform for all technologies. ICT tools, forums, and platforms could be more effectively used by people to learn from one another, encourage citizen-driven science and ultimately serve as a platform for the spread of other technologies across societies. Information technology-based platforms, including social media and mobile broadband, can be used for sharing knowledge, information, experience and advice on relevant policies, actions, partnerships, technologies and research and development outcomes. In that context, technology infrastructure could be considered a public good.

29. ICT can also help to connect people, innovators, entrepreneurs, financiers and funding agencies in a way that was not possible a few years ago, improving the prospects for collaboration and partnerships to connect the supply of and demand for innovation. ICT platforms can play a critical role in making Governments aware of innovators and innovations in their own countries. By providing business intelligence on what innovations are funded by whom, they can help to reduce the

duplication of work among development agencies. The Global Innovation Exchange was presented as an example of such a platform. The online platform foreseen as a component of the Technology Facilitation Mechanism may play a role in that regard in the future.

30. Many technology developments are possible only because they are based on the successful application of basic scientific knowledge, which has taken decades to create. Standards and formats need to be deployed to improve global access to basic scientific knowledge and simplify technology use. For example, data on basic technological innovations are currently scattered across scientific publications and academic journals in PDF format, instead of being accessible in standardized databases. Creating modern databases of knowledge and basic research relevant to the Goals would provide innovators with critical enabling tools.

31. ICT tools can help communities develop inclusive technologies that reflect their own priorities and needs. New technologies have also enabled the development of collaborative models and learning platforms based on open-source applications and the sharing of data. An example in the field of education was presented, whereby educational content is digitized and made engaging for children. Stakeholders can customize the content and run various tests of what is most effective. The data are shared with all interested stakeholders and communities. Such models illustrate that there can be incentives for developers to share content and applications in exchange for data.

32. New technologies such as mobile phone technology have allowed countries to leapfrog. Paradoxically, because infrastructure development is path-dependent, a lack of infrastructure can foster leapfrogging. Examples include agriculture (such as farmers using smartphones to access information on food prices, weather conditions and forecasts of locust outbreaks), the use of air quality sensors and the use of real-time data monitoring technology.

International cooperation

33. International cooperation in capacity-building has to occur at a level that is commensurate with the ambitions of the Goals. Developing countries need special support in that regard. The more developing countries are engaged in the technology development process, co-designing and co-adapting technologies, the more they will become sources of knowledge themselves. International cooperation, based on the right incentives, could increase cost-effectiveness, address market failures and improve economic efficiency.

34. All forms of cooperation and partnerships, including South-South, North-South and triangular cooperation, should be encouraged in order to facilitate access to science, technology and innovation. Regional cooperation on problems of common concern and voluntary technology cooperation agreements are important. At the level of the United Nations, the proposed technology bank for the least developed countries and the Technology Facilitation Mechanism could play a role in such agreements. Specific guidelines on technology transfer to developing countries that address the conditions of transfer, evaluation and replication of technology are needed. In that context, the Global Environment Facility has developed a series of pointers for developing countries.

III. Recommendations for the science, technology and innovation forum

35. Going forward, the forum will provide an opportunity to strengthen dialogue between stakeholders and Governments and promote a conducive environment for the sharing and exchange of ideas and success stories in scientific collaboration, innovation, technology transfer and diffusion, and for new initiatives and partnerships. It can help to identify practical means and solutions to foster science, technology and innovation in all countries. In that respect, the forum should consider various sources of knowledge, including indigenous knowledge, and facilitate exchanges on science, technology and innovation solutions. The forum may serve as a venue to provide specific, practical guidance on how to make science, technology and innovation for the Goals a reality, including how to enhance the transfer of environmentally sound technologies to developing countries.

36. In terms of governance, working methods and activities, the forum could take inspiration from other mechanisms such as the Internet Governance Forum, which was mentioned as an example of a successful multi-stakeholder mechanism working at various levels.

Promoting networking and matchmaking

37. There is a need to ensure multi-stakeholder participation in the forum and that the contributions of experts, technology users, change agents, young people, the private sector, academic institutions and all other relevant stakeholder groups are taken into account. The forum also needs to reflect the perspectives of the poor. The forum could become a platform at the global level for the science, technology and innovation community and its full diversity of stakeholders to jointly create the conditions of possibility for transformative, solutions-oriented science, technology and innovation by fostering international coordination and multi-stakeholder collaboration and, where necessary, providing support to manage the disruptions to science, technology and innovation policy and practice that will be generated. That includes conveying locally determined needs to achieve the Goals and presenting useful and proven technologies developed by communities and local innovators.

38. The first forum experimented with ways to promote networking and matchmaking, pursuant to its mandate. In one example, innovators selected from a large number of respondents to an open call for action had a chance to present their innovations, and other participants expressed an interest in helping some of the respondents to gain access to funding. Open calls for innovation could be a recurrent feature of future forums, to help source, fund and deploy technology solutions to specific Goal challenges. In that context, the forum could facilitate access to funding for outstanding innovations with the greatest Goal impact. It would be important to expand participation in the forum to include the financial sector, especially providers of early-stage finance, who could be matched with participating innovators.

39. Between annual sessions of the forum, the 10-member group to support the Technology Facilitation Mechanism and the United Nations inter-agency task team on science, technology and innovation for the Sustainable Development Goals may promote activities that catalyse and enable stakeholder engagement in the Mechanism and that foster the inclusion of existing initiatives and organizations that

also promote science, technology and innovation for sustainable development. That can be done around cross-cutting themes, such as data collection and availability, or for specific sectors, such as health and education.

Forum as a catalyst for multi-stakeholder partnerships

40. Governments need to collaborate and innovate with all types of stakeholders and experts to leverage science, technology and innovation to achieve the Goals. In that context, the United Nations needs to continue to support such cooperation through its convening power. In particular, the forum has to serve as catalyst for multi-stakeholder partnerships that include the private sector. It needs to link closely with and bring together existing initiatives, such as the International Network for Government Science Advice, the Global Research Council, the Future Earth initiative, the African Innovation Foundation, private-public academic partnerships and the Global Young Academy, as well as development and research funding agencies at the national, regional and global levels.

41. Numerous examples of successful multi-stakeholder partnerships were featured at the forum, such as Saving Lives at Birth: A Grand Challenge for Development; For Inspiration and Recognition of Science and Technology, which has promoted science and technology among children in 46,000 schools in 86 countries; and Copia, which addresses hunger and food waste through technology. The forum should support the sharing of experiences with those partnerships and learning from their organizational models. Similarly, the forum needs to be coherent with and link closely to ongoing science, technology and innovation activities at the global, regional and national levels, many of which were mentioned in the course of the forum. Examples of other organizations working on science, technology and innovation mentioned specifically included the proposed technology bank for least developed countries, the Climate Technology Centre and Network, the Asian and Pacific Centre for Transfer of Technology and the science and technology programmes of the European Commission. The Commission on Science and Technology for Development was specifically mentioned as an institution within the United Nations with a mandate to provide high-level advice on science, technology and innovation to both the General Assembly and the Economic and Social Council. Synergies should be established with its work programmes and meetings, which also include input from stakeholders.

Making future science, technology and innovation forums work cumulatively over the coming 14 years

42. The forum must be action-oriented and cumulative in its impact. Over the coming 14 years, future forums should learn from and advance the achievements of previous forums. In that context, various proposals were made, including for intersessional meetings and regional and/or national science, technology and innovation forums, events and activities, in addition to global online discussions and more systematic ways of involving civil society. Several proposals were made on how to make the forum itself more interactive, including break-out sessions. In that regard, it was suggested that the break-out sessions could focus on targets of the Goals that were primarily focused on technology, including specific targets relating to education, gender, health and the Internet, as well as others that could benefit from science, technology and innovation.

43. The forum should become the outcome of an annual programme of results-oriented activities and, as part of a series, provide a regular opportunity to collaboratively define priorities for action. Activities could address specific objectives such as monitoring and sharing information on trends in the deployment of science, technology and innovation for the Goals; showcasing specific solutions and achievements (such as social and technological innovations, the development of national policy road maps, multilateral resource mobilization for science, technology and innovation); collecting, coordinating and making available state-of-the-art expertise on specific issues and practice areas (e.g., science, technology and innovation training and education, capacity-building and mobilization, science advising, the development and diffusion of inclusive, transformative technologies, technology assessment and open data/digital platforms); implementing horizon scanning and technology foresight activities; identifying emerging priorities, critical knowledge and innovation gaps and "neglected" Goals and targets, and identifying and assessing ways of mobilizing science, technology and innovation responses to address them; continuing to build a community of collaborators as part of United Nations initiatives on the use of science, technology and innovation for the Goals, and providing effective matchmaking opportunities. The 10-Member Group to Support the Technology Facilitation Mechanism and the United Nations inter-agency task team on science, technology and innovation for the Sustainable Development Goals have offered to further refine those objectives and develop specific action to support those objectives.